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FAR PLACES

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DEDICATION

My wife, Vera Margaret Bell, has been my companion on many journeys in out-of-the-way localities, on foot, on horseback, and by canoe. With happiness and contentment she has shared my life in remote mining camps. With patience and interest she has followed my wanderings into more distant regions. To her, my unfailing helpmate, I dedicate *Far Places* with deep affection and gratitude.

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ACKNOWLEDGEMENTS

What traveller into the remoter parts of the world is not indebted to his companions for any success he may have obtained in his explorations? How would my journey to Great Slave Lake, taken over thirty years ago, have been possible without the inspiration of Robert Bell? How could the trip to Great Bear Lake, even more difficult of access in those days, have been accomplished without the coöperation of Charles Camsell? How could I have wandered far and wide across the Kirghiz Steppes without the support of the faithful Cossacks, without the aid of R. J. Morgan and G. G. Gibbins?

For the encouragement and help of these and many other friends of my longer expeditions I wish to express my gratitude. And let me also thank those with whom I travelled on my shorter trips, in New Caledonia, Jamaica and Albania.

In writing *Far Places* I have received much assistance from Mrs. Katharine M. Wright of New York, and from Miss Netta Jones of Toronto. To both of them goes my warm appreciation.

J. M. B.

INTRODUCTION

Yet all experience is an arch where thro'
Gleams that untravell'd world, whose margin fades
For ever and for ever when I move.

Tennyson

Wherever the traveller "with a hungry heart" may roam, his life abounds in new experience. Amid tribulations he has joy. Amid difficulties, consolation. The more deeply he studies the manifold phenomena of nature, the more clearly he recognizes man's relationship to them, the greater is his inward tranquillity. The more lands he visits, the more peoples among whom he mingles, the broader is his tolerance, the fuller his understanding of what has been accomplished by each in its evolutionary vicissitudes.

In writing *Far Places* I confess to a definite object. Behind the descriptions of remote localities, the details of adventures, lurks the hope that the book may, in some small measure, encourage an interest in the science of geography. The word stirs memories of childhood days, of laborious learning of the names of countries, their capital cities and other important towns, their physical features, the principal commodities each produces. But geography is much more than that. Without a knowledge of it, how can we understand history, and the tangled sequence of political events? How can we visualise the economic development of the world from those dim ages of the past when man was a wild animal hunting his prey much as the wolf does to-day, to this period of aeroplanes, of telegraphs, telephones and radios?

The development of every country, large or small, is influenced by its physical features. The site of every great city has been similarly dictated. As time

passes its rise to power, and its decline into insignificance, are ceaselessly conditioned by changing relationships to the natural environment. The plant and animal life of every part of the earth is controlled by climate. The living conditions, the physical appearance, even the character of races are affected by weather phenomena. A fertile region, productive under adequate rainfall, may desiccate and change to desert through a gradual decrease in precipitation. Then agricultural settlements once flourishing disappear, populations become nomadic or vanish altogether.

A criticism often made of geography is that as a branch of learning it lacks precision, that it depends on information which belongs to other realms of thought, physiography, meteorology, geology, history, economics. The censure is not without foundation, but what science does not glean from other fields of knowledge? Geography describes the earth's surface as it is to-day, and accounts for the distribution of its activities and life. It is the background of human society and of the diverse endeavours of mankind.

Milton wrote "The study of geography is both profitable and delightful, but the writers thereof, though some of them exact enough in setting down longitudes and latitudes, yet in those other relations of manners, religion, government, and such like, accounted geographical, have for the most part missed their proportions."¹ Since Milton's day geographers have improved their ways. No longer do they

"In Afric maps,
With savage pictures fill their gaps,
And o'er uninhabitable downs
Place elephants for want of towns."²

¹ John Milton. Preface to "A brief history of Muscovia and of other less-known countries lying eastward of Russia as far as Cathay".

² Jonathan Swift. *Poetry, A Rhapsody.*

An appreciation of geography is valuable to him who stays at home, and wishes to understand the why and wherefore of human events and the character of the natural forms with which he is familiar. Even more desirable is it to him who journeys far afield. With a geographic perspective every physical feature he sees, every climate he knows, every town he visits, every monument he studies, assumes a new appeal.

If in my book of travels I have overstressed geological facts dull, I fancy, to the general reader, may I be forgiven? Inevitably they creep in to what I write because I see the world through the eyes of my profession. Sometimes they help to explain the origin of physical features, to make more intelligible occurrences which have shaped events.

My work as a geologist, my love of exploration, have led me to lands far and near. Greatly have I enjoyed these wanderings. Rich stores of recollection are mine. Golden memories enshrine camps beneath resinous pines by Canadian lakes, bivouacs on flowery slopes amid New Zealand mountains, resting places near coral shores of tropic islands. Precious remembrances stay with me of climbs over alpine pastures and across fields of glistening snow, to crests among the Pyrenees, of journeys with Ojibway canoeemen on rivers racing northward to Hudson Bay. Always remains the lure to see new lands, to learn the ways of strange peoples. Often comes the wish to revisit former haunts, to travel again with tried companions. May I ride once more with Cossack horsemen on Asiatic steppes! From the grim rocks of the Grand Atlas may I watch the sun go down over the broad Sahara and see the colours play across the desert sand, yellow, violet, grey, as day passes into night!

*Old Burnside, Almonte,
Ontario, August, 1931.*

FAR PLACES



CHAPTER I

GREAT SLAVE LAKE VISITED AND REVISITED

With the odours of the forest,
With the dew and damp of meadows,
With the curling smoke of wigwams,
With the rushing of great rivers, . . .

From the forest and the prairies,
From the great lakes of the Northland.

Longfellow

THERE are so many vast sheets of fresh water on the North American continent that Great Slave Lake, almost lost in the wilderness of north-western Canada, may excusably be forgotten by those who take only a passing interest in the progress of exploration. With numerous arms spreading across the map like a mighty octopus, this great physical feature is nearly 300 miles in length, and its greatest width, over 60 miles.

The *coureurs des bois* of French Canada were great travellers, and it is probable that these hardy adventurers were the first white men to visit Great Slave Lake. We can surmise, at any rate, that this may have been the case, as the earliest British explorers are reported to have found French names among the aborigines. But it is to Samuel Hearne, redoubtable explorer if pusillanimous soldier, that the honour of its official discovery belongs. At Prince of Wales's Fort where he was stationed, Hearne had heard from Matonabbee, an Indian chief, of a deposit of copper far to the North. Twice he endeavoured to reach the locality where the treasure lay, and twice he was unsuccessful. On his return from his second voyage Hearne discussed the matter

with Matonabee, who ascribed the failure to the misconduct of the guide and the absence of women with the party. "In an expedition of this kind," said Matonabee, "when all the men are so heavily laden that they can neither hunt nor travel to any considerable distance, in case they meet with success in hunting, who is to carry the produce of their labour? Women were made for labour; one of them can carry or haul as much as two men can do. They also pitch our tents, make and mend our clothing, keep us warm at night; in fact there is no such thing as travelling any considerable distance, or for any length of time, in this country, without them; and yet, though they do everything, they are maintained at a trifling expense; for, as they always act the cook, the very licking of their fingers in scarce times is sufficient for their subsistence."¹

Hearne listened to the words of wisdom, and on his third expedition, when he was accompanied not only by Matonabee but also by two of the chief's youngest and presumably most beautiful wives, duly reached the mouth of the Coppermine River. On his outward voyage Hearne followed a route which left Great Slave Lake far to the westward; but on the way back, travelling southward from the headwaters of the Coppermine, he reached Great Slave Lake or, as he calls it, Athapuscow,² a short distance east of the North Arm, on Christmas Eve, 1771.

On its southern shore two traders of the North West Company built a trading post in 1785, to which

¹ The Publications of the Champlain Society—Hearne: *A Journey from Prince of Wales's Fort in Hudson Bay to the Northern Ocean* with notes, etc., by J. B. Tyrrell, 1911, page 102. Quotation taken from *Progress of Discovery of the More Northern Coasts of America*, by Patrick Fraser Tytler, 1833, page 108.

² Various writers—Miss Agnes Laut, Dr. George Bryce, etc.,—have indicated that it actually was Athabaska Lake he reached on Christmas Eve, 1771, but this point of view is contradicted by Hearne's narrative.

four years later came Alexander Mackenzie, travelling towards the mighty river that bears his name. Truly one marvels at the intrepidity of these youthful explorers in tackling the unknown. Hearne, when he reached Great Slave Lake after years of wandering, was only twenty-six, and Mackenzie was apparently no older on his arrival there.¹ In the first half of the nineteenth century Franklin and Back added further information to the knowledge of the lake's topography, while in the second half the venturesome Abbé Petitot wandered far and wide around its shores, and to him may be attributed the publication of the first comprehensive, if somewhat impressionistic, map of the region.

Extending from north to south over more than two degrees of latitude, and from south-west to north-east over seven degrees of longitude, Great Slave Lake has a varied climate, nowhere quite as harsh as one would imagine from the northern situation. The south-western part—the most favoured section—where the weather is modified by the warm winds which blow from the Pacific through the broad valley of the Liard, basks in a wonderful summer, with clear skies and dry warm air. The tediousness of the winters there, which commence in October and last until April, is alleviated by the brilliancy of the atmosphere, and severe storms are rare. The thermometer seldom rises above zero from the first of December till the beginning of March but, by way of compensation, rarely dips as low as on the prairies much farther south.

Like all the other great lakes of North America, Great Slave Lake owes its origin and many of the peculiarities of its form to the continental ice-sheets

¹ The date of Mackenzie's birth is sometimes given as 1755, but according to a letter from his grandson to Dr. George Bryce it was 1763.

which played such havoc with pre-existing topography some ten thousand odd years ago, or very recently as geologists measure the passage of time. Its shores display a wide range of view. The water of the western part, influenced by its great affluent, the swift-flowing Slave River, carrying vast quantities of silt, is milky almost to the outlet of the Mackenzie. Eastward of the Slave, however, it becomes progressively clearer, and in the north-eastern bays it is of limpid transparency. The generally low shores of the western part provide dull scenery; but the eastern part with its maze of islands, deep irregular bays, winding channels, rocky margins, and wild northern vegetation, has the landscape charm of the Laurentian Highlands of Eastern Canada added to a barbaric splendour of its own. The scenery at the far eastern end is even majestic. Here in places great cliffs, bold in outline and bizarre in shape, rise eight hundred feet abruptly from the water's edge, long mighty ridges are silhouetted against the sky, and numerous streams tumble in roaring cascades into the great basin below.

The aborigines of the region belong to Dène or Athapascan race, the variations of whose harsh guttural language are heard at intervals all the long way from the mouth of the Mackenzie to the borders of Mexico. Around Great Slave Lake the natives are divided into three poorly-defined tribes—the Slaves, living to the north and south of the western part of the lake, towards the outlet and along the banks of the upper part of the Mackenzie; the Yellowknives, hunting along the eastern bays of the lake and around the stream which flows from the Barren Lands and bears their name, and trading at the principal settlement of the region (Fort Resolution, on the south shore); and the Dogribes, wandering be-

tween the North Arm and Great Bear Lake, and bartering their furs at the isolated outpost of Fort Rae.

Petitot says that Great Slave Lake "doit ce nom à une tribu dène qu'y trouvèrent les premiers explorateurs, celle des Étcha Ottinè ou gens (vivante) à l'abri, sous-entendu des montagnes Rocheuses, Indiens dont les complaisances extrêmes et la servilité voisine de l'abjection leur valurent le nom d'Esclaves, tant des Anglais que des Français." MacKenzie, who does not seem to have been much impressed by the Indians of the far North-West generally, indicates that the tribal name of the Slaves was given to them in derision by the Crees. In MacKenzie's time and earlier, this warlike people, living on the edge of the great plains far to the southward, made frequent raids into the region and found that its inhabitants, preferring discretion to valour, fled to the refuge of the forests and mountains at their approach.

A vivacious legend details the origin of the Dog-ribbs. A woman and a dog alone were left after a furious onslaught from an enemy people. In course of time the woman gave birth to four puppies, which within a year had grown to be large dogs. One day, after a new fall of snow, their mother, to her amazement, beheld the footprints of four children. Next day when the dogs were disporting themselves she hid in the bushes and watched. As soon as the dogs believed themselves to be beyond observation, they jumped from their skins and became two boys and two girls. She rushed forward, but before she could join them they had resumed their canine coats. The following day, however, she was not to be outwitted. Before the dogs were allowed outside, she tied to the tail of each a long string, and as soon as she saw from her place of concealment that they had removed

their disguise she jerked the skins away and they were never allowed to recover them.

The Yellowknives were so called because in the early days they had knives and axes of copper derived from deposits on the Coppermine River. These for a time are said to have given them an advantage over other tribes.

Whether the name Great Slave Lake recalls the abject terror spread in the wake of ancient warriors, or the opinion held of the character of some of the aborigines who dwelt beside it, the Indians living in its vicinity to-day are inclined to be servile, rather feeble and generally unreliable. Having the cruelty and cunning of which all Red Men are supposed to be possessed, they lack the gaiety of the Eskimos and the friendliness of the Algonquin tribes. Superstitious, not infrequently diseased, pursuing a highly precarious existence, and having no love for the white man whom not unnaturally they regard with suspicion as an intruder and the cause of the disappearance of game, their life is drab, sordid, and singularly gloomy. But they are far from devoid of good qualities; they are patient under misfortune, display remarkable endurance, and, though oversolicitous on their own behalf, are ready to treat hospitably those in distress, whether of their own race or another. Their legends indicate a sense of impish humour both childlike and engaging, while their conversation at times suggests poetic values strangely incongruous in the speech of so generally miserable a people. Warburton Pike tells a beautiful story of Saltatha, the faithful companion and guide of his journey to the Barren Lands. Saltatha, after listening to a dissertation by an old missionary on the merits of Heaven, replied, "My father, you have spoken well; you have told me that Heaven is very

beautiful; tell me now one thing more. Is it more beautiful than the country of the musk-ox in summer, when sometimes the mist blows over the lakes, and sometimes the water is blue, and the loons cry very often? That is beautiful; and if Heaven is still more beautiful, my heart will be glad, and I shall be content to rest there till I am very old."

Since the summer of 1899, when I first travelled into the far Canadian North-West, I have come to regard Great Slave Lake as an old friend, and, as in the case of other old friends, have learned to love it in spite of its less pleasing qualities—so much so, in fact, that many years after my first visit I have been lured again and again to its shores. I was there in the summers of 1921 and 1922, and again in those of 1928, 1929, and 1930. What a revolution in modes of travel has taken place in the thirty years which have elapsed since my earliest visit! On my first journey southward from Great Slave Lake I had six weeks of hard slogging by canoe, on snowshoes, and by horse team to reach Edmonton, not to mention several weeks of waiting en route for the ice to form. On the last occasion I came out by aeroplane in as many hours! No longer can Great Slave Lake be considered an "Ultima Thule." No longer can the traveller returning therefrom be regarded as a pioneer of exploration or be panoplied with the garments of romance.

Perhaps it was the very difficulties of that first trip that made it the most interesting of my journeys, the one whose episodes recall most vividly the northern life. Leaving Edmonton, then a small frontier town, we crossed the prairies in Red River carts to Athabasca Landing, where we took to canoes. With well-trained *voyageurs*, happily recovered from the effects of excessive conviviality in Edmonton, our

journey down the swiftly-flowing Athabaska, including its fifty miles of almost continuous rapid above Fort McMurray, can never be forgotten. A short distance below McMurray we were picked up by a Hudson's Bay Company steamer—a flat-bottomed stern-wheeler, burning wood fuel, of the type still in use. On this we travelled to Fitzgerald—then called Graham Landing—stopping at Fort Chipewyan and other less important points en route.

Chipewyan then, as now, was a picturesque place. It has changed little in thirty years. The various establishments of the fur traders, the missionaries, the Mounted Police, which chiefly compose the old settlement, are scattered along the rocky foreshore of Lake Athabaska for a mile or more. The scene when one stops there even to-day is delightfully old-time in character, reminiscent of the days of MacKenzie, Franklin, and the other early explorers, who used this old fort of the North West Company as a point of departure for their more northerly expeditions. The steamer ties to the shore; gaily dressed Indians and half-breeds amble slowly to the landing-place in a continual stream; scarlet-coated Mounted Police appear, priests in black cassocks, innumerable dogs which generally fight. Behind the red rocks, with patches of yellow lichen and with bright flowers in the hollows, are the snow-white buildings, the dark straggling forest, the blue sky.

When landing at Fitzgerald to-day one is more pestered by solicitous taxi-drivers than at a city terminal. But thirty years ago the trip over the portage to Fort Smith, sixteen miles away, was not made in an hour by motor over a fairly smooth road. It was often a day's journey with oxen, along a trail, for more than half the length of which the animals sank to their bellies in a slough of mud and muskeg.

Though in summer the flies are still bad on the Smith portage, one is no longer compelled to linger in their midst and may escape the full warmth of their attentions. Thirty years ago one could not elude them even with the aid of gloves, nets, and fly oil. And how the horses and oxen suffered! The mosquitoes stung them till their eyelids from incessant pricking closed over their eyes, the bull-dog flies sucked blood from great holes made by incessant biting till their bodies streamed with gore. The trail was strewn with the bones of the animals that had succumbed. A Klondike-seeker shot himself saying, "Hell can't be worse than this, therefore I'll chance it."

On that first journey we reached Fort Resolution from Fort Smith, after four days' travel by canoe. My impressions of the settlement on that clear warm evening are still vivid. On a shelving shore in front of the Hudson's Bay post, the Catholic Church and the fur traders' establishment, stood a village of skin wigwams. From each rose a column of smoke—vertical and pink. Some canvas tents, scattered here and there, belonged to would-be prospectors, stranded on their journey to the Klondike. Indians of all ages squatted around, getting protection from the flies in the smoke of their camp-fires. There were dogs everywhere, all of the wolf-like variety, starved, and with last year's hair hanging in great chunks from their emaciated bodies. The stillness was punctuated by the noise of their fighting and the cries of their owners as occasionally these took the trouble to beat off the stronger and less famished, lest they destroy the weaker. Small canoes passed silently back and forth between the shore and the fish-nets in the open bay.

In a few days all of the wigwams had vanished. Like a magic city they had disappeared overnight.

The Indians had gone with the dogs to their hunting-grounds, not to return till Christmas.

That summer the leader of our expedition sent me to explore the North Arm of Great Slave Lake. How thrilling it was to cross that great sheet of water with a small party of my own, to travel among the innumerable islands, to follow the intricate shore-line. Our craft was a frail one for voyaging on waters so generally troubled, and to avoid catastrophe we had to seize every opportunity to make the long traverses in safety by starting early or continuing late. But Great Slave Lake can be calm and peaceful, and on those rare occasions how lovely it is. I remember one matchless evening, warm and glowing—the air full of the sound of wildfowl—when we camped beneath the spruce trees on a rocky island, sweet with the scent of flowers, the most permanent of memories. To my mind in such surroundings came the words of Bishop How's hymn:

“Summer suns are glowing
Over land and sea.
Happy light is flowing,
Bountiful and free.
Everything rejoices
In the mellow rays,
All earth's thousand voices
Swell the psalm of praise.”

In the autumn I made a second trip, this time travelling along the high cliffs and on the clear waters of the north-eastern bays. I recall two incidents of this journey—a debauch and a shipwreck. The former was terrible, the latter almost disastrous. On a chilly afternoon, late in September, we sought refuge from the driving rain at the camp of some Yellowknives. The leader of the wild-looking band was muttering abracadabras in preparation for a feast for which the tribesmen had assembled. They had recently returned from a highly successful hunt,

the proper sequel to which is a carouse. It was impossible to escape. We were forced to join a great circle of braves who surrounded the fire in the centre of the largest wigwam. The squaws sat with the children in the background, or replenished the plates set in front of each of us. Indian etiquette forbids one to let anything remain, and faint-hearted and contemptible is he whose gastronomic powers are small. How hard I struggled with those vast quantities of caribou and beaver boiled stringy, saltless, tasteless! In vain I tried to leave. My plate was heaped higher, my desire to depart interpreted as offence on my part at insufficient hospitality. The air was stifling. The smoke from the fire was so thick that it almost hid the faces around the flickering flames. The Indians said little; eating occupied all their attention. The bones they passed backward to the squaws or flung through the door to the dogs. The feast continued till far into the night, when one by one, with grunts of satiated approval, the carousers departed to their own wigwams or slept where they sat. It took me many days of strict dietetic discipline to recover!

Returning from the eastern part of the lake in October, a little steamer which had picked up our small party travelling by canoe was flung on the shore of a rocky island in the open lake, in the midst of a raging snowstorm. To continue by canoe was out of the question, and it seemed impossible to relaunch the larger craft. But we were more fortunate than we had reason to expect. After the storm had subsided a slight rise in the water, produced by a westerly wind, enabled us by our united efforts to get the boat back into the water, and fortunately she leaked no more than she had done before the adventure!

When I returned to Resolution from my wanderings of that first season one of my first occupations was to help gather driftwood, to warm the house of the Hudson's Bay Company's agent and his kindly sister, with whom I was to find a refuge till spring. Another task was to assist in collecting the winter's supply of fish, not only for ourselves but for the dogs as well. This commodity (variously described, according to the manner of curing, as *poisson sec*, *poisson pendu*, or *poisson au pont*), dried caribou meat and bannock were to be our staple foods. On Sundays we had as a treat that rare delicacy, caribou tongue. Generally, too, we had porridge for breakfast and potatoes for dinner, and occasionally salt pork and dried apples. The diet was limited in variety but not in quantity, and we fared fairly well, except when we encountered *poisson pendu* which had become partially decayed before the frost prevented further decomposition. In October and November the shooting of ptarmigan and prairie chicken provided entertainment and helped the table. Later in the year we had fresh fish caught through the ice.

The weather during the greater part of those two months was glorious. The frost had hardened the swamps, and the light coating of snow was not sufficient to make walking through the woods difficult. The colour effects at sunset were superb. Then the generally drab scenery of Fort Resolution was magically transformed. The pink, yellow, and gold of the sky scintillated over the snow, the white buildings of the little settlement repeated them, and the sombre background of forest assumed mysterious shades of crimson and purple. Even more marvellous at times were the nights when the aurora played across the sky, or when, under the brilliance of the

moon, silvery splashes lighted the snow-veiled trees, persuading one to believe in fairyland.

There was plenty of relaxation. The Indian dances were amusing, and it was not difficult to master the strict etiquette of the Red River jig, danced with decorous rhythm to the wheezy notes of an accordion. Generally not more than two couples faced each other on the floor. The place of any dancer was taken as soon as he or she showed signs of flagging, or when some one of the onlookers wished to have a turn. The bucks never exchanged pleasantries with their partners, who demurely kept their eyes on their swiftly moving feet. To both sexes it was a serious business.

Whenever I had an opportunity I passed through the light stockade which at that time surrounded the Hudson's Bay post, to partake of the more bounteous fare hospitably dispensed at the table of the free trader. These visits were sometimes surreptitious because, even so lately as thirty years ago, "the Company" did not encourage frequent social intercourse with its rivals in the fur trade.

Excitements, too, were not wanting during that long winter. There was the visit of the Chief Factor, Mr. J. S. Camsell, keen administrator and highly honoured guest, the cause of an amazing efflorescence in culinary activity; and that of the Bishop, Monsignor Grouard, saintly man and great traveller —God bless him for his humanity of soul! There were the arrival and departure of the annual packet, and—greatest of all—the New Year festivities. A few days before Christmas the Indians from far and near began to arrive, with large numbers of dogs still fighting and howling but no longer starving, bringing with them fresh meat and their early catch of furs, and crowding into the common room of the

post, haranguing indefinitely and raucously, coughing, spitting. During their visit the dogs truly made night hideous. Some brute would start howling, the wolfish cry would be taken up by his neighbour, and soon there would be a chorus from all the houses and wigwams for miles along the shore.

The festivities proper began with midnight mass on Christmas Eve. Could one ever forget that picturesque ceremony! The Indians, to the number of several hundreds, men, women, and children, crouched on the floor of the rude log church, clad in their caribou-fur winter dress. Their dark faces were illuminated by the flickering fish-oil lamps and by the brilliantly taper-lighted altar, as the priest, a Frenchman from old France, rendered that majestic service. When he reached the "Adeste fideles" he sang the first verse through in Latin in his rich Gascon voice, and then the whole congregation joined him and finished the hymn in the Indian tongue. Strangely penetrating music it was, which not even the grating voices of the participants destroyed. When we emerged from the church I saw the sky aglow with a display of the northern lights, which quivered, faded, and flared again as the Indians passed me, changing from red to purple, from purple to blue, from blue to green, from green to orange. Lifting up their heads towards the heavens, the old men saw "the sky god beckoning". Their old religion gave colour to the new.

The great event of the Indians' sojourn was the celebration of New Year's day. Scarcely had 1900 been ushered in when, dressed in their best, they commenced to call at the post to felicitate my host. The festival did not end until, weary with dancing and feasting in the common room, they departed, not long before the sun rose in gorgeous splendour on

the second day of the year. A few days later all of them had scattered to their hunting-grounds.

I never became an expert at driving the northern dogs, strange beasts which showed no response to kindness, and snarled and snapped at each other without provocation. But accompanied by various companions I made many trips with them across the ice and through the forest, sometimes being away from the post for days at a time, camping in the snow beneath the stars or spending the nights in Indian huts. When we slept outside we always went to bed by a roaring fire, which started us off well; but as the night wore on and the fire died down, the chill enveloped us. In fact we often almost froze. But what a disinclination there was to emerge from the blankets to replenish the fire! Great, however, was the alacrity to rise once it was rekindled and the clatter of cups indicated that tea was about to be served!

In those days there were some interesting characters at Resolution. I recall more particularly old José Beaulieu and Michel Mandeville, descendants of *coureurs des bois*, whose strain of aristocratic French blood was almost overpowered by the more predominant aboriginal. Beaulieu was a picturesque old fellow, whose dark wrinkled skin, piercing eyes and hooked nose gave him a strikingly Oriental appearance. His cunning was notorious, and his skill in handling his large and flourishing progeny the envy of the community. A more pleasing personality was Michel Mandeville, the interpreter of the Hudson's Bay Company—a tall, erect, handsome man with courteous manners and a great reputation as a *raconteur*. His repertoire of Indian stories was excelled only by that of another half-breed, William

Norn, whose bevy of sprightly daughters made his house a centre of social activity.

My recent visits to Great Slave Lake have been fleeting. Of late I have been led there by the pursuit of the rainbow—the quest for mineral deposits—more than by that geographical and geological exploration which was the sole motive of my first sojourn. When I paddled out¹ of Great Slave Lake and into the Slave River, amid the first severe frosts of October, 1900, it was with the expectation that I would revisit its shores and continue my explorations the following year. Twenty-one years spent in many parts of the world, however, were to intervene before I was to see them again.

In the summer of 1921 the excitement that resulted from the discovery of oil near Fort Norman on the Mackenzie River during the previous autumn led to a marked improvement in the means of communication to Great Slave Lake and further north. Rival steamship lines competed for the transportation of passengers, and of the freight that accumulated at the beginning of the season but diminished towards its close. The traveller had a choice of two routes. He could leave Peace River Crossing, which was then the railhead of the Edmonton and Dunvegan Railway, and journey down the Peace River to the Slave. Or he could set out from Fort McMurray, within a few miles of which the Alberta and Great Waterways Railway was nearing completion, and descend the Athabasca River to the Slave. The former route, over which I had never travelled, offered the opportunity of seeing new country.

I recall that journey down the Peace as one of the

¹ With Charles Camsell, on our return from the trip to Great Bear Lake described in Chapter II.

most reposeful I have ever made. It was mid-summer, the rush of the season over, the boat not crowded. The weather was perfect, the sunsets of red, purple and gold finer than "brush can paint or pen describe". The banks of the great swift-flowing stream, the most important of the Mackenzie head-waters, are 400 or 500 feet high at Peace River Crossing. In passing eastward they become gradually lower till their elevation is only a few feet above the water where the river, after three hundred miles or so of meandering, joins the Slave. The curving cliffs, steep and in places curiously sculptured; the succession of forested flats and islands; the great sweep of racing water furnish pleasing but not impressive scenery. The further east one goes the less interesting is the landscape, but it is everywhere restful. No physical feature more thoroughly deserves its name than the Peace River.

Great changes had taken place at Fitzgerald and Fort Smith in the twenty-one years which had elapsed since my last visit. Still the gaunt and mangy dogs frequented the boat landing at Fitzgerald, still the black-shawl-covered squaws hung about in groups and giggled as one passed, still their husbands and brothers alternately idled at the work of unloading and raced to complete it. But the settlement had grown, shops with city-like fronts and show-windows had replaced the old-fashioned trading-post, and restaurants had appeared. At Fort Smith pleasant-looking government buildings were being erected, courteous and hospitable officials were in charge. No longer was the portage between the two centres a trail of mud, and a trial of endurance to man and beast. It was a motor road over which passed an almost endless stream of trucks and traction engines. Bullock teams had disappeared,

though there were still plenty of horse-drawn wagons. But the change had brought its corresponding disadvantages. At Fort Smith there was no rest. The place was too full of life for sleep. Almost all night long the traffic along the road continued, and when temporarily it ceased the dogs howled.

We had a few days to wait till the boat down the river was due to leave. There was time to escape from the bedlam and to visit the salt springs on the Salt River—about twenty-five miles to the west of Fort Smith. The first half of the road to the Catholic mission farm of St. Bruno, situated on the Salt River a few miles from the springs, leads over sand plains and through pleasant open forest; most of the remainder is through swamp. We travelled in an ancient and dignified conveyance which looked as if it might in its prime have been used in the Lord Mayor's procession. The horses were lean and hungry beasts who delayed our advance whenever we passed appetizing grass. Our driver was a gloomy Red Man who had learned good manners from long service with the missionaries. Our progress across the sand plain was sprightly, but when we reached the swamp, funereal. There was no definite road; we appeared to plough aimlessly and at the whim of the animals through open water and across seas of mud. Meanwhile mosquitoes rose in clouds. Nearing the Salt River, we emerged from the sloughs and entered an alluvial flat with prairies covered by wild roses, vetches and larkspur, and interspersed with beautiful healthy bush. Soon we reached the mission farm and had a warm welcome from the good father in charge and the brothers. What struck us most was their gaiety. Here they were, many miles from nowhere, raising cattle and grain crops to provide the mission with food, all working like Trojans and

all as jolly as sandboys. We spent a happy night with them, or more correctly a portion of a night, because by two o'clock in the morning we had been awakened and were on our way to the salt springs. We had to get back to Fort Smith that day.

Soon after leaving the west bank of the Salt River we entered a spacious plain, over which our route lay westward for four or five miles. In the spring, after the melting of the snow, the plain is a shallow lake; after heavy summer rains its gumbo-like surface almost prohibits passage. In the dry weather when we were there, walking was as easy as along a cement highway. And in such an open space there were no mosquitoes to mar the calm of a perfect morning. The plain is dead level and almost entirely devoid of vegetation, though numerous islands, a few feet higher and covered with trees, dot its surface, and long tenuous points, luxuriantly clad, encroach from the surrounding forest. As the air warmed and the sun played across the glistening salt-en-crusted surface, the demarcation between forest and plain became fainter. It shimmered. Like a mirage, it looked as if waves of real water were breaking against the irregular margins. Across the plain meander streams of clear salt water, so narrow one can often jump across them, but so deep as to be unfordable if one cannot. These tested our athletic skill and guided us to our destination, near the base of a low limestone escarpment. From it numerous springs are said to issue—the one we were visiting being the source of the salt supply of the mission. The sparkling transparent water gurgles among the boulders and deposits its excess burden of salt on the edge of the plain in banks of snowy whiteness.

A few days after our visit to the salt springs, we had descended the Slave River and had reached the

lead-zinc deposits, south of Pine Point, on Great Slave Lake. These have long been known to the Indians of the region, who, it is said, were accustomed to melt the lead ore to make bullets for their muzzle-loading guns before the advent of the repeating rifle. They first became familiar to white men through the activities of would-be Klondikers who, having failed to reach the Eldorado by the much-advertised route via the Mackenzie and its tributaries, had diverted their attentions to Great Slave Lake. The first claims were staked in 1898, on the assumption that the heavy lead and zinc sulphides carried high values in gold and silver. That winter a rush to the locality occurred. In the dead of night dog-teams carrying gold seekers stealthily crept out of Fort Resolution. They were tracked by others. Missionaries and traders took part, and soon the area was staked far and wide, for the good of the church and for private gain. Great was the disappointment, the following summer, when the visit of a Geological Survey party and the receipt of the first accurate assays revealed the fact that the deposits, while interesting from their content in lead and zinc, were apparently devoid of precious metals. Geologically the deposits resemble occurrences of the same elements that have a widespread distribution in the Mississippi Valley.

The claims acquired with such sanguine expectations were allowed to lapse, and no intensive prospecting was begun in the locality till the summer of 1920. That year, C. B. Dawson, who had already learned from the authorized officials at Ottawa that no previous claims were in good standing, staked a considerable area of ground for a group of Boston mining men. It was on their behalf that my visit the following summer was made. Shortly before my

arrival a stranger had appeared on the ground, who claimed the deposits by right of staking in 1908. The newcomer assured Dawson that he had kept his claims in good standing by annual payments in lieu of assessment, and pointed out claim posts bearing both his name and the date of staking. This evidence so impressed the surveyor then engaged in determining the boundaries of the claims Dawson had staked, that he was induced to survey also the boundaries of the stranger's five Paragon claims, lying entirely within Dawson's block. Further enquiries in Ottawa at this juncture elicited the information that the Paragon claims were indeed in good standing but their position, according to the plan submitted to the department at the time they had been recorded, was thirty or forty miles away from that of Dawson's claims. The magnetic variation of the compass in this part of the Great Slave Lake region is about 36 degrees east of north. Apparently the stranger had considered it as being west of north, and thus the Paragon claims had been placed about 72 degrees out of their true position in relationship to the nearest recognisable topographical feature, to which in unsurveyed territory the regulations required their being associated. As a result of this curious mistake on the part of the rival claimant it was clear that his title to the ground would not be upheld. Some months later an amicable settlement of the dispute which naturally arose as to the question of ownership was made without appeal to the courts.

The lead-zinc deposits are situated in flat monotonous country—sand and gravel plains interspersed with park-like forests and grassy swamps, from which every conceivable insect pest emerges in countless myriads. It was a pleasure to observe,

from behind the security of a mosquito net, when repose came after a day of interesting toil but of unceasing torment, that our torturers had their enemies as well as their victims. Great fleets of dragon-flies soared through the warm air, gulping down mosquitoes and black-flies as they flew, but lighting on the tent flap to bask in the sunshine and leisurely enjoy the devouring of a captured bull-dog fly. Equally active in its pursuit of these pests was a sort of wasp whose advent we warmly welcomed. Little larger than the bull-dog, the wasp was capable of seizing and dismembering its prey and eating the softer parts of the body with amazing speed and agility. For it the destruction of the bull-dog provided both sustenance and sport. No sooner had one of them been dispatched than the vigorous little creature had captured another.

In returning from the visit to the lead-zinc deposits my route, after leaving the Slave, followed the Athabaska River up to Fort McMurray at the junction with the Clearwater. To-day the terminus of the Alberta and Great Waterways Railway is at Waterways, three miles up the Clearwater from McMurray, but in August, 1921, the new railway ended at Lynton fifteen miles further up the valley, in a mile or two of wavy unballasted track, hugging the edge of a plateau three or four hundred feet above the flood plain of the Clearwater. From the river to the steel a trail of deep black mud wound its way through a tangled mass of tree tops—spruce and cottonwood—snapped by a recent wind storm from their great trunks, which stood gaunt and shattered above the widespread destruction. It mounted by slithery zigzags along the brink of deep gullies worn by spring freshets on the plateau side, and then continued its way to Lynton, where it lost itself in a sea

of slime surrounding the collection of hastily-built timber and tar-paper shells that formed the frontier town. In all directions inland from these dismal habitations stretched muskeg, deep, wet, mossy, and almost untraversable. Irregular heaps of tin cans and other domestic ejecta marked the boundary between the mud of the settlement and the virgin swamp beyond. The most imposing shanty—the Café Lacombe—was our first point of call. We had been travelling since early morning, it was now late in the afternoon, and our appetites after much fresh air and exercise were keen. They needed to be so to appreciate the chief eating-house of Lynton. From its gloomy interior issued the accumulated stench of malodorous foods and humanity. Banners of sticky paper, black with the flies they had victimized, hung thickly from the rafters. Cakes and pies in amazing variety decorated the shelves along the walls and formed a convenient roosting place for still more flies. Yet seldom have I more thoroughly enjoyed a meal. What a powerful sauce is hunger!

It was a strangely heterogeneous crowd which passed the whole or part of the night at Lacombe's. Some—outgoing traders, trappers, tourists—had travelled southward from the Mackenzie with us. Others—ingoing traders, trappers and missionaries—arrived during the night on the train from Lac la Biche, hastening to the isolated posts of the far north before the rapidly approaching winter closed communication. A woman and two children (who never uttered even a whimper during the coming and going of humankind, the barkings of dogs and the innumerable other disturbances of such an establishment) were partitioned off by a curtain of red calico from the rest of the guests, who were stretched out on every inch of floor. A fine young French

priest, full of zeal, later to give his life for the cause at Great Bear Lake, a jolly red-faced Britisher en route to a northern fishing station, a collection of dejected Cree bucks with their squaws and children, were among those who emerged from the building in the morning to struggle for a place at the three-basin washstand.

To-day the express which travels from Edmonton to Waterways is not like the Blue Train serving the Riviera or the crack "Trans-Canada" of the Canadian Pacific Railway, but if the journey is slow and broken by many bumps, one travels in a Pullman and has the advantage of a dining-car, and both remain on the track. It was not so in 1921. Even where the road-bed in parts was ballasted, there had been much sagging in the muskeg stretches. Between Lynton and Lac la Biche we left the track, if my memory is correct, twenty-two times. But so slow was our progress, so expert the train crew in righting our position, so pleasant the company which occupied the rough day coach in which we sat and slept, that after the first two or three times off the rails the repeated joltings ceased to cause us mental agitation. Rather they enlivened the thirty-hour journey between the two points, and the delays gave us ample time to cook our meals and eat them comfortably in the open air, with no fear of the swaying motion of the train disturbing our digestion.

The trip to Great Slave Lake in 1922, when I visited some mineral prospects on the Yellowknife River (and found them as disappointing as one usually does a much heralded distant bonanza), left with me fewer pleasant memories than earlier and later trips. It was made in August and early September. The weather was cool and unpleasant, and storms dogged us over the open waters of Great

Slave Lake. On one occasion we seemed to be providentially saved by reaching a rocky islet near the Gros Galet on a tempestuous night. The oil boom of the year before had subsided; the competing transportation companies had insufficient traffic to warrant activity; the steamers plied irregularly; delays were inevitable and frequent.

Quite different was the visit of 1928. Exploration giving interesting results was in progress at the lead-zinc claims near Pine Point, and mineral deposits had been found near the Yellowknife, which lured one at the time to fond expectations even though later one's hopes were dashed to the ground. The mosquitoes were busier, I am sure, than ever before, but that godsend, fly-tox, made the tents comfortable even when the pests were so thick that it seemed as if space had to be carved to permit their erection. Mosquitoes, however, can be endured when one has good company, and Dawson and I certainly had that—because we had as fellow-travellers F. G. Banting, the distinguished medical scientist, and A. Y. Jackson, the well-known artist.

We crossed from the south shore to the north and back again in a gasoline-driven scow—old, leaky and unseaworthy—but despite storms which stranded us for days on rocky islets, despite our striking a submerged reef, and despite other minor misadventures, we made the journey happily and gaily. While windbound on the Gros Galet we were surprised by the visit of an incongruous human collection, who, travelling southward in a larger boat than ours, sought refuge from the gale. The small company consisted of Englishmen, Indians, half-breeds, and two Syrian traders and their Syrian wives. It was strange to receive round our fireside, in the far Canadian North, men and women who were neither

European nor American but Asiatic, neither Christian nor pagan but Mohammedan. The Syrian men, strong, swarthy, and attired in semi-Indian clothing, looked in keeping with the surroundings. The women, shy, delicate, retiring, and dressed in Eastern garments though unveiled, were in fantastical contrast with that cold rocky environment.

The greatest joy of our trip was the rediscovery of some iron deposits. In the journey across Great Slave Lake on our way back from Great Bear Lake,¹ in the autumn of 1900, our party had been picked up from an island near Gros Cap by a kindly though evil-looking savage, the Yellowknife chief, on his way to Resolution with a scow-load of dried meat. In his company, on our way to the south shore, we had stopped for a few hours for the wind to abate at another island, and there we had obtained a specimen of ironstone from a ledge apparently of considerable dimensions. The portion of Great Slave Lake between Gros Cap and the south shore is filled with islands—some merely rocks, others half-a-mile in length—and I had no clear recollection of the location of the one on which we had landed. Efforts were made in later years by various explorers, including myself, to find the spot, but without avail. On this trip in 1928, plans for a more thorough search were made while we were held by the wind on the Gros Galet. Looking from the summit of that bare rounded rock we chose as the first point of attack an island five or six miles to the north. Its outlines, from my hazy memory, seemed familiar. If we were unsuccessful there we would visit other islands, and hope by a gradual process of elimination to discover the right one. As a north wind had been blowing when my party had been travelling with the

¹ For details of Great Bear Lake trip, see chapter II.

Yellowknife chief, I thought we should find the treasure, if treasure it were, near a bay facing southward. When the wind had calmed sufficiently we left the shelter of Gros Galet, only to seek refuge a mile farther on, in a rising gale, on a tiny rock whose sole inhabitant was a baby gull. Leaving this unsociable creature alone in its kingdom the following day, we drew near the island for which we were bound, to encounter great seas beating on menacing reefs off its southern shore. As a landing could not safely be effected on this side, we rounded perforce a long easterly point, and there, entering calm water, found ourselves within a bay that proved to be not merely an indentation of the shore of a single island but a harbour sheltered from all winds, in the midst of a group of islands. Putting ashore on the nearest gravelly beach, to my great surprise and amid general rejoicing, we perceived that chance had brought us to the very place at which the Yellowknife chief had landed nearly twenty-eight years before! There was the spot where we had our brief camp and there was the ledge of ironstone!

Returning from the Yellowknife River later in 1928, our journey to Gros Cap was uneventful. About ten miles to the south of that landmark a freshening wind forced us to stop one evening at a small island. We went to bed early in order to get what rest we could, and to be ready to start on the long traverse to the south shore as soon as it grew calm. Shortly after midnight the energetic Dawson, the leader of our little party, awakened us; lake conditions were perfect, and by one o'clock we were off. It is never really dark in July at Great Slave Lake, and the night was further illumined by the flickering diaphanous streamers of the northern aurora. These gradually faded as the north-eastern sky

brightened, heralding the approaching dawn. The light slowly strengthened, the colours in the sky became warm and luminous, the smoothly billowing water scintillated like a vast opal. Yellowish pink, lilac, purple, greenish blue, pale blue, danced and shimmered, forming a magic foreground to the fantastic silhouettes of the dark rocky islands.

“Colour that made one stop and say:—
‘Earth, are you Heaven to-day?’
Colour that made one pray.
Lumps of colour, liquid and cool,
Cool and near,
Clear and gay,
Tumbled about my way.”

No one spoke. All were enthralled by the splendour. Only the wheezy chug-chug of our awkward craft marred the majesty of the silence. At half-past three the sun rose, as we passed Gros Galet, crimsoning the few clouds which hung above the horizon. Slowly the colours paled, the clouds became grey, banners of misty white raced upward into the pale greenish-blue sky, the water turned cold yellow.

No point is better known to travellers to Great Slave Lake than Stony Island—an acre or two of well-glaciated rock rising some fifteen feet above the delta mud of the Slave River, about twelve miles east of the mouth of the principal stream, and about one-quarter of a mile off the south shore. The end of long traverses in many directions across the treacherous waters of the great lake, from time immemorial it has been the rendezvous of *voyageurs*, who have left with forebodings or reached it with relief after tempestuous crossings. At half-past five we landed on the gloomy rock, tired, cold and hungry, but content and filled with the happy memory of a journey successfully completed.

A pathetic sight greeted us at Stony Island. On a

shelf in the rock, where grass and creeping cedars grew, were the coals of a recent fire, and beside them lay scattered a few plates, a spoon, an axe, the remnants of a blanket, a wretched pillow. Here had been brought to die two of the victims of the scourge which raged that summer among the natives of Great Slave Lake. From the island they had set out on many a long voyage, and for their last and greatest journey it had been chosen as a point of departure. Their freshly dug graves lay in the little valley filled with alders, which cleaves the rocky surface. That outbreak of influenza, in many cases followed by pneumonia, worked havoc among the Indians of Great Slave Lake. Probably one-tenth of the native population died, and the mortality would have been even greater had it not been for the devotion of the missionaries at Resolution, Hay River and elsewhere.

In 1929 my trip to Great Slave Lake was an easy one. There were no delays in the steamer journey from Waterways to Dawson's Landing, and afterwards our travelling was by aeroplane. So uncertain on account of the wind was the journey by canoe from the south shore to the Yellowknife, that we used to allow two or three weeks for the trip, but on this occasion W. M. Archibald and I left the lead-zinc deposits near Pine Point in the early morning, motored to Dawson's Landing, twelve miles away, flew to the Yellowknife in less than an hour and a half, had nearly the whole day there, and were back in our beds at the lead-zinc deposits in the evening! Truly remarkable has been the improvement in methods of transportation in these northern outposts.

Soaring high above the waters of Great Slave Lake, we had a fine view of the innumerable specks

of land forming the archipelago between the south shore and Gros Cap, of the larger and higher islands divided by wandering channels stretching off to the east, and of the almost bare plateau with its multiple lakes between Gros Cap and the Yellowknife. As far as the eye could reach, until dim distance merged with the horizon towards the Barren Lands, was spread that vast region of rock and water and patches of forest, as yet almost unpenetrated by white men. But it was the delta of the Slave River that presented to us the finest spectacle. It would be difficult to imagine scenery less imposing or more monotonous than that of the delta when one travels through it by boat, but how different when viewed from above. Seen from this aspect it assumes its true perspective as a great physical feature. Stretching from east to west for twenty miles, and extending inland for perhaps fifty, is an area through which ramify innumerable winding streams, some a mile in width, some the merest threads. In the radiant sunshine they shone like a network of gold in the surrounding vegetation—brilliant green sedge near the shore of the lake, more sombre willow and poplar inland near the water courses, darker spruce where the land was somewhat higher, and yellow and purple swamp in abandoned stream channels. Untraversable on foot in summer as we knew the locality to be, from the air it looked like a great carpet of resplendent loveliness.

The journey to Edmonton from Great Slave Lake by plane, made in splendid flying weather, enabled me to view with happy retrospect the scenes of my toilings in the past by canoe or on snowshoes. Our excellent pilot, Carl Gill,¹ inspired us with complete

¹ C. A. K. Gill was killed while flying in the winter of 1931 at Camp Borden, Ontario.

confidence. The experience is a delightful memory. The time in the air, from leaving Dawson's Landing to the arrival at Cooking Lake, near Edmonton, was only a little over six hours, but actually we were longer on the way, as we made brief stops at Fitzgerald and Chipewyan, and spent the night at McMurray. The sun was sinking below the rim of the surrounding hills in a warm and golden sky as we descended in a great spiral to this gateway of the Mackenzie. The view was extraordinarily beautiful. The long stretch of the Athabasca, the meandering Clearwater blocked by islands at its mouth, the little settlement and the white buildings of the old Hudson's Bay post nestling among the fertile meadows at the junction of the two streams, the steep wooded banks rising therefrom to the level of the plateau above, the limestone cliffs and pavements along the water's edge, the varied craft of both air and water—all melted mellowly together.

"In journeyings often, in perils of waters, in perils of robbers, in perils by mine own countrymen, in perils by the heathen, in perils in the city, in perils in the wilderness, in perils in the sea, in perils among false brethren; In weariness and painfulness, in watchings often, in hunger and thirst, in fastings often, in cold and nakedness", writes St. Paul. How well these graphic words can be understood after many northern visits. At Great Slave Lake, happily, one meets with no robbers, one sees no cities, one encounters few false brethren. The great Apostle of Christianity does not mention the flies, and surely he must have suffered from them when "round about unto Illyricum", he "fully preached the gospel of Christ". But how quickly the minor afflictions of a journey are forgotten, how soon even the greater trials fade from the mind! Pleasant memories only hang for me round the far-flung shores of Great Slave Lake.

CHAPTER II

A JOURNEY TO GREAT BEAR LAKE

Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortez when with eagle eyes
He stared at the Pacific, and all his men
Look'd at each other with a wild surmise,
Silent, upon a peak in Darien.

Keats

ON the north-western shore of Lac du Brochet¹ rises a lonely mountain, about which lingers a pleasing Indian legend. In the dim ages past a band of hunted Dogribs, who had found refuge near the Yellowknife River, espied in the distance the canoes of their ferocious enemies, the Crees, who hailed from the edge of the Great Plains far to the southward. Hastily collecting their few possessions, the Dogribs took to their own canoes, and sped northward into Lac du Brochet as fast as their swiftly moving paddles could carry them. But they were no match for the fleeter Crees, who steadily gained on them. As the terrified fugitives drew near the base of the mountain all hope of escape was abandoned. The pursuers were upon them, and before them lay torture and death, or captivity and endless drudgery. In that moment of despair the canoes were opposite a rocky spur descending from the towering crests above, near the end of the lake. Suddenly the wall of rock parted, revealing a narrow passage for the panic-stricken Dogribs. On they went, not daring to look backward, until they found themselves on the calm surface of a little lake

¹ Also called Lake Marian. The lake is the northern continuation of the Northern Arm of Great Slave Lake.

beyond. Then, not hearing the exultant war-whoops of the Crees, they ventured to turn in the direction of the channel from which they had so recently emerged. It was no longer there! It had closed as quickly as it had opened, leaving but a cleft in the granite face to indicate where it had been! The story is strongly reminiscent of the pursuit of the Children of Israel through the Red Sea. But is it not true? Do not the rift in the mountainside and the little lake remain to prove its veracity?

The cleft mountain scarcely deserves so impressive a physiographic designation; it is merely a prominent hill, rising barely 300 feet above Lac du Brochet, but in a region devoid of pronounced elevations, it may, perhaps, be so dignified. It was a matchless evening in mid-August,¹ over thirty years ago, when first I scanned the far-flung panorama which its treeless crest unfolds. The warm-toned twilight which passes for night in the latitude of Lac du Brochet enhanced rather than diminished the beauty of the prospect. The innumerable lakes, which, as far as the eye could reach, dotted the landscape, shone like opals in a setting of brown muskeg and blue-green spruce, dark and sombre in the shadow of the mountain but becoming brighter farther away, then fading through multiple shades of purple into the deep blues of the distant horizon. Here and there rose isolated knobs of ancient rocks like that on which I stood; and towards the west a northerly trending ridge of craggy limestone marked the edge of the Paleozoic land. Almost directly below my feet there entered into Lac du Brochet the Grandin or Marian River, its winding course traceable for many miles through grassy marshes and scattered forest.

¹ 1899.

This, then, was the region of which I had been told at Hislop's Post at the south end of the lake. This was the country through which ran the chain of lakes and rivers forming the canoe route to Great Bear Lake, over 200 miles farther north. What an opportunity for exploration was here, for following in the footsteps of the daring Abbé Petitot, for solving geographic mysteries!

The vision of an expedition into far northern waters came to me that summer evening on the cleft mountain. It remained and strengthened, and, during the long winter months spent at Fort Resolution, and described in my previous chapter, developed into a definite plan. The visits of wandering Indians and of white and half-breed travellers to that post, provided many opportunities for discussing the comparative merits of the several routes to Great Bear Lake. Owing to the fact that the swift-flowing rivers of the north open some weeks earlier than the lakes, these visitors were unanimous in advising me to journey thither by way of the Mackenzie and the Great Bear Rivers. If we were not overtaken by the ice of the following winter, we might make the return journey by the lakes and rivers leading into Lac du Brochet.

So began my trip to Great Bear Lake. The two men who formed my party, on leaving Fort Resolution early in April, 1900, were Louis Tremblay and Charlie Bunn. Louis was a half-breed of French and Cree ancestry, dashing in appearance, a favourite with the half-breed women, and a success at the local dances. His character was unquestionably bad, but when he was in a pleasant humour he beguiled one to forget his evil reputation and to remember his qualifications as a *voyageur*, which were reputed to be satisfactory. Bunn was a breezy,

good-natured western American, who had made his way to Great Slave Lake with the intention of proceeding to the Klondike. No one knew anything of his past or his capabilities. At Resolution the choice was limited, and the few other men who presented themselves and seemed acceptable backed out when they heard details of the journey to be attempted, into a region to them unknown and consequently filled with terrors.

The trip across the ice of Great Slave Lake to Fort Providence occupied more than a week. We would have made better time had we not been hampered by exceptionally mild weather. The ice was slush-covered, and our dogs, pulling a heavy canoe, required frequent rests. On the night we reached Fort Providence the small population of the little port was further augmented by the arrival of a party from Fort Simpson, who had come up the Mackenzie with dog-teams to prepare for the summer's activity on the Hudson's Bay Company's steamer, *Wrigley*, which was drawn up at Willow Island about 12 miles below Fort Providence. The newcomers strongly advised our not remaining at Fort Providence for the break-up of the ice as we had proposed, but accompanying them on their return in a few days' time to Willow Island. An earlier start northward from that locality would be possible, as the river opened sooner there than at Fort Providence. Among the party from Fort Simpson was Charles Camsell, son of the Chief Factor of the Mackenzie River. He had graduated from the University of Manitoba a few years before, and had been spending the winter with his father at his northern headquarters. That meeting with Camsell was a momentous one for me and for the expedition. He was at a loose end and ready to seek pastures

new, though he had been intending to return to civilization. I urged him to join my party, and he agreed. About my own age, but more experienced in northern exploration, speaking enough of the local Indian languages to make himself understood, backed by the prestige which his popular father's position assured, he was an addition to our party whose value was to be demonstrated in the ensuing months and was even then manifest. This was the beginning of a friendship which grew rapidly under vicissitudes endured together, and has not waned in the years that have followed.

When we pitched our tents, about the end of April, close to the log building which formed the Hudson's Bay Company headquarters, water and slush covered the surface of the Mackenzie River, and the ground of Willow Island was free of snow. Early in May the water began to rise, and, as the island at best is but a strip of recent alluvium only about ten feet above normal water level, we were instructed to keep our canoe at hand for a quick departure in the event of the low banks being overflowed, or alternatively to take to the *Wrigley*, which was in process of being painted.

One evening as Tremblay, Bunn, and I sat round our smoky fire of green willow branches, we were visited by an Indian from a neighbouring camp, who, for half an hour or so, warmed himself without saying a single word. Assuming he understood no language but his native one, we made various allusions, not all complimentary, to his presence; but neither by speech, gesture, nor expression of countenance did he evince the slightest comprehension. As he was on the point of leaving, however, having taken a look at the western horizon, he remarked in flawless English that the condition of the sky suggested

a downpour and that, as a consequence, the break-up of the ice was imminent! We learned later that he had been educated with the intention of serving as a teacher at a missionary school but, his racial tendencies not inclining him to dull scholastic routine, he had chosen rather the free, unfettered life of his own people, with all its toil and hardship and privation.

As patches of open water began to appear in the river, vast flocks of geese, ducks, and swans arrived on their annual northerly pilgrimage. These ensured a full larder, but with muscles well toughened after a long flight they added little of savour to it. The Indians, meanwhile, brought fish from the Horn River, which enters the Mackenzie on the northern bank opposite Willow Island and had already opened, and foxberries that were of last year's crop but were still fresh and edible after the snow had melted.

The danger of our position at Willow Island lay in the possibility of the ice jamming at a constriction of the Mackenzie called L'Equerre, a few miles below, and damming back the water. One evening, about the 12th of May, the Indians announced that the great cakes were moving steadily downstream, and we thought we had escaped this peril. Consequently that night, though the water level stood only a few inches below the surface of the island, we retired to our tents with a feeling of safety. When we awoke early next morning, however, we were disillusioned. I found myself elevated on a floating island composed of a thick bed of dried wild hay covered by my oil-sheet and blankets! As the water was rising quickly, we first sought a refuge in the already congested Hudson's Bay Company hut. Then provisioning our canoe we left for the highest land in the immediate neighbourhood—a ridge 20 or 30

feet high, about three miles up the Horn River. Here most of the Indians of the vicinity also found a retreat from the floods. For several days we listened to the beating of tom-toms and savage incantations to lower the waters. The uproar was successful. The ice jam at L'Equerre broke. The waters sank. The *Wrigley*, in an almost ice-free river, was soon on her way northward.

We reached Fort Simpson on the 21st of May, a week before we were expected or, indeed, entirely welcome. Our presence added more mouths to feed, and provisions would be low until the arrival of the boats from the south. Fort Simpson at that time was a tidy and attractive spot. The company's large white-washed buildings were enclosed within an imposing stockade, surmounting the main entrance to which was the old organization's Coat-of-Arms with its motto, "Pro Pelle cutem". The situation on the bank of a lofty flat-topped island commanded a superb view of the great Mackenzie and its almost equally mighty tributary, the Liard, which joins it at that point. Grouped about the fur-trading establishment were a few Indian houses and the simple buildings of the Anglican mission.

It was too early in the season for the *Wrigley* to proceed downstream; she was not due to leave for another ten days. Thus, not wishing to further embarrass our kindly hosts of the Company and of the Mission, Bunn, Tremblay and I on the 28th left by canoe to descend the river. Camsell was to join us by the *Wrigley* at Fort Norman, which was to be the real point of departure for Great Bear Lake.

The distance from Fort Simpson to Fort Norman, following the Mackenzie, is about 450 miles. In this stretch the current nowhere slackens to less than three miles an hour, so that even when we stopped

paddling our progress did not cease. Twice only did we camp on shore at night—once at the little Hudson's Bay Company post of Fort Wrigley to pay a friendly visit to its manager, and again near Roche Trempe-l'eau, a prominent eminence on the east side of the river, some thirty miles below Fort Wrigley, where strong headwinds beating against the current raised such a sea that it was dangerous to proceed. In these high latitudes it is never dark at this time of the year, and except on the occasions mentioned we went on all night, Tremblay and Bunn taking turns in steering the canoe past the numerous bars which break the even current in its width of a mile or more. This sort of travelling was truly delightful. The air was mild and balmy, the flowers were coming into bloom beside the piles of ice which still in places heaped the banks, the great flights of migratory birds continued, the high mountains to the westward and the intermittent peaks to the eastward provided scenery which was everywhere pleasing and in places magnificent. There is something indescribably impressive about a river so great as the Mackenzie, its mighty bends bounded only by the sky-line in the distance, the majestic sweep of its current carrying vast quantities of debris onward to the sea, its spruce-clad shores and islands even yet scarcely touched by the hand of man.

I remember one entertaining incident which broke the pleasant monotony of our peaceful descent of the great stream. As the lilac hues of the midnight twilight were warming to brighter colours, our canoe glided on the current past the mouth of the North Nahanni River, the deep valley of which could be traced for many miles into the snow-clad mountains to the westward. On the spacious flat at its mouth was an Indian encampment, the smoke of

whose many wigwams rose bluely against a sombre background of forest. Seeing our canoe approach, the natives took to their moose-skin crafts and soon we were surrounded by a large number of canoes full of gesticulating savages, who occasionally found a moment to satisfy by vigorous shouting the curious enquiries of the squaws who had remained on shore. This yelling back and forth excited the innumerable dogs which raced up and down the beach, barking and howling as only Indian dogs know how to do. We were glad to think the current was encouraging our escape from the bedlam. The Indians clinging to our canoe floated downstream with us for several miles, exchanging moose meat for tea and tobacco, and then one by one detached themselves and returned to their squaws, their children, and their dogs.

When Alexander Mackenzie in 1789 descended the river bearing his name, he found that the coal seam which outcrops on the east bank, a short distance above Fort Norman, was burning. The fire has never been extinguished in the period of nearly a century and a half which has elapsed, and the coal is being slowly consumed. Mackenzie no doubt thought that the fire was due to spontaneous combustion, or had been inadvertently lighted from an Indian camp. The Indians ascribe its origin to a less prosaic cause. They say that years ago the region of the Mackenzie was inhabited by a race of giants. One of these killed two beavers, one relatively much smaller than the other, but both commensurate in size with their slayer. The skins were spread out to dry on the slopes of Bear Rock at the mouth of the Great Bear River, where to this day one may see two bare elliptical patches marking the spots where they lay, and around them tall trees which are the descendants

of pickets inserted to hold them in place. Below Bear Rock there is a dark swirling eddy, in which are a number of great vertical tree trunks apparently stuck in the bottom. Are these not the shafts of the arrows with which the beavers were killed? And was it not on the fire still burning at the coal seams that the beavers were cooked?

We remained about two weeks at Fort Norman, completing the preparation of our small equipment, and procuring as we believed a suitable guide in the person of Johnny Sanderson. Sanderson described himself as a half-breed, but his appearance belied the existence of more than a trace of European blood. More venturesome, however, than most of the Mackenzie River natives, he had travelled to the Yukon and had hunted on the shores of Great Bear Lake. The limitations, not only of canoe space, but also of supplies available, forbade our taking a large amount of food. We had a couple of bags of flour, about fifty pounds of pork, some tea and sugar, and a very few tins of such great luxuries as canned butter and beef extract. That was all. The rest of our nourishment had to come from the country, and we were assured that there should be no lack of fish nor, if we were fortunate, a scarcity of caribou and other game. On the morning of the 18th of June all was ready and we bade farewell to Fort Norman and its hospitable missionaries. We now had two canoes and both were heavily laden. In the smaller were Camsell and Sanderson; in the larger were Bunn, Tremblay, and myself.

Curving round the southward flanks of the great buttress of Bear Rock, towering 1,400 feet above, the Great Bear River enters the Mackenzie on its east side, about a mile below Fort Norman, flinging a wide stream of clear blue into the murky waters of

the greater river, and not commingling with it for a mile or more. In the 80 miles of its course from its source in Great Bear Lake, the river flows between well-defined and generally high wooded banks, for most of the way devoid of sand-bars and islands. Generally deep and swift, its usual width is from 75 to 150 yards. There is only one appreciable rapid, about halfway between the lake and the Mackenzie, at a point where the stream widens in passing over flattish cretaceous sandstone. This rapid, which in normal water is not more than 3 feet deep, forms the only serious impediment to navigation between the Mackenzie and Great Bear Lake. It is not generally necessary for the traveller to take advantage of a portage on the left bank. The Indians paddle from Great Bear Lake to the Mackenzie in about 10 hours, but—so swift is the current—they usually take as many days to make the ascent.

Immediately north of the Great Bear River and a mile or two below the rapid, rise the castellated limestone crags of Mt. Charles—one of the peaks of the Franklin Range. From its highest point the valley of the river is traceable almost from its source in Great Bear Lake to the Mackenzie. The course is remarkably straight, and even from a canoe one gets stretches of uninterrupted view three or four miles in length.

For most of the length of the Great Bear River the current is too swift to breast with the paddle, and we had to resort at times to tracking, a difficult undertaking. Both shore lines were, in several localities above Mount Charles, packed for miles with ice, which formed in places vertical cliffs 20 or 30 feet above the water, though the deciduous trees mingling with the spruce forest along the banks were

in full leaf, and though the mosquitoes rose in pestiferous millions as if from cold storage. Elsewhere the banks were of sticky or slippery clay, which necessitated sure footing if one did not wish to be precipitated abruptly into the icy water. It was an odd experience, being pulled along the foot of an ice precipice by the tracker walking on its uncertain edge above. There was an element of danger also lest the cliff should give way and envelop the frail crafts below. One evening a great stretch of ice slipped without warning into the water, flinging immense waves across the river and high on the bank on which we were encamped, 30 or 40 feet above the shore. Apart from wetting our equipment, and scaring us it left no unpleasant consequences, but taught us the need for care.

The shores of Great Bear Lake are even yet not accurately mapped, and its superficial area is not precisely known. It contests with Great Slave Lake the honour of being the fourth largest body of water on the American continent, less in size than Lake Superior, Lake Michigan, and Lake Huron only. The names of the five huge bays which sprawl outward from a relatively small central part—Keith, Smith, Dease, McTavish and McVicar—are reminiscent of the early explorers. In a straight line it is about 180 miles from the outlet of the Bear River to the mouth of the Dease River, and the distance from the west end of Smith Arm to the south-eastern foot of McTavish Arm is probably even greater. The water of the lake, unsullied by the silt of any large entering river, is of limpid transparency, and apparently, in places, of great depth. In one part of Smith Arm we were unable to find the bottom with over 280 feet of line.

Franklin, on the second of his northern Canadian

expeditions, passed the winter of 1825-26 at a little fort which bore his name, situated on Keith Bay a few miles north of the outlet. In 1837, Fort Confidence was built on the north shore of Dease Arm, close to the mouth of the river similarly named, by Dease and Simpson, to be occupied as a winter headquarters during their exploration of the Arctic coast. Afterwards this was used by Richardson and others as a base in a far-spread search for the ill-fated Franklin.

Later than the British geographers the indefatigable Petitot came to Great Bear Lake. In his *Exploration de la Région du Grand Lac des Ours*, he picturesquely describes his wanderings around its shores in the years from 1866 to 1878. One cannot help being filled with admiration for the pluck of that little black-robed father. Truly he was a worthy successor of Père Marquette, and I doubt if he found the Hareskin and Dogrib Indians more pleasant to live among or more fertile ground for his gospel, than did Marquette the Illinois when he wintered with them two hundred years before. Mosquitoes, hunger, fatigue and "the stench of tired-out savages" were, according to Père Brébeuf, "four things difficult to endure" in his work among the Indians of eastern America. Perhaps to this list Petitot might have added the biting cold of the winter of Great Bear Lake, and the incessant howling of the starving dogs. It is related that the Hareskins were finally induced to embrace Christianity by the miraculous escape from starvation of the tribesmen among whom Petitot was sojourning, following upon his intercession on their behalf. The caribou hunt had failed, they were unable to get fish, the activities of the medicine men were of no avail. Petitot was taunted because his God was powerless to help them

in their anguish. Then, when death had already begun to lay its hand upon the little band, in answer to his prayer there arrived a large number of canoes en route to the Mackenzie, laden with dried meat. The newcomers, after a successful hunt, had intended to travel in another direction when, as in the case of St. Philip's conversion of "an eunuch of great authority", the angel of the Lord had spoken to them and told them to "arise, and go toward the south".

Thoughts of the tribulations of those earlier explorers were in my mind on the clear crisp afternoon of the 23rd of June, 1900, when we mounted the bank of the south side of the outlet, and beheld stretching to the limit of the distant horizon the vast expanse of the unbroken ice of Great Bear Lake, appearing except around the shore to be as solid as in midwinter. It was obvious that here we were to remain for some time, and, though we fretted at the delay, the site was a good one at which to conduct a series of astronomical observations to tie our work with that of Franklin and his successors.

Soon after our arrival, under the influence of strong easterly winds, sheets of ice began to break away from the main mass and pass down the Great Bear River. We fondly imagined that this movement of the ice shut off from approach to our camp a band of Indians, the smoke of whose wigwams was visible along the shore some 4 or 5 miles to the north. Our fear of a visit from our neighbours was solely on account of the inroads they might make into our modest supply of food, which we were already trying to conserve by killing such game as was available. We were not left long under this illusion. About ten of them appeared on the opposite side of the river carrying light bark canoes. In these they embarked in open water, and when they came to a

chunk of floating ice they leaped out, ran across it, re-embarked, jumped on the ice again, and so continued, till every one was safely on our side of the river. They belonged to a band of Hareskins, and in semi-aboriginal attire came under the leadership of their chief—a tall, lithe native of truculent mien and forbidding appearance. Adopting a menacing attitude, he greeted us with a veritable volley of questions. Why had we come? Did we not know that in our wake the caribou would disappear like snow in summer, as the buffalo had done, so they had heard, before the advance of the white man on the prairies? If the Great White Mother had indeed dispatched us to explore their country why had she not sent gifts of tea and tobacco? Fortunately, Camsell was able to soothe him. Tea and tobacco were produced. The peace pipe was smoked and much tea was drunk. Meanwhile we became friendly, our plans were discussed, our route outlined, and an arrangement made that the chief or some of his band should meet us at an indicated point at the south-eastern end of McTavish Arm on the 15th of August. They would guide us thence as far as they knew the way, towards Great Slave Lake. Our plans were to follow the northern shore of Keith Arm to Etacho Point, and from it to cross to the north shore of the lake, along which we proposed to continue to the extreme north-eastern end of Dease Arm. From the mouth of the Dease River which enters there we hoped to make an overland trip towards the Coppermine River. After our return from the Coppermine we were to proceed westward along the south shore of Dease Arm to Cape McDonnel, and thence pursue the long intricate shore-line of McTavish Bay to the point of the rendezvous with our new acquaintances.

The weather during the whole of our stay at the outlet remained radiantly fine, the sun shone throughout most of the twenty-four hours of each day. On one occasion the air was so warm that Camsell and I were induced, in spite of clouds of mosquitoes, to take a bathe in a small pond behind our camp. The surface of the water was comparatively comfortable but the bottom so cold that we were tempted to investigate its nature. Below an inch or two of silt we discovered solid ice.

On the 3rd of July the lake was free enough of ice near the shore to permit of our making a start, but our progress for more than two weeks was slow indeed. A favourable wind would carry the ice from the shore, enabling us to proceed. Then a change would bring it back again, to hold us for hours or days. Baulked by the caprice of the weather, we occasionally made short portages overland from open water to open water, or forced our way through rotten ice. By taking advantage of every favourable opportunity we reached the foot of Deerpass Bay—the most northerly portion of Keith Arm—on the 13th. Here we decided not to attempt to round Etacho Point, where we believed the ice still to be packed, but to follow a river and lake route of which Sanderson knew, across the peninsula between Keith Arm and Smith Arm. In this cross-country trip the weather was so summery and the growth in places so luxuriant, that we were surprised to find Mackintosh Bay, an indentation of the southern shore of Smith Arm, which we reached on the 17th, full of ice. A westerly wind blew the ice out of Smith Arm on the 21st, and on that day and the next we were able to complete the crossing to the north side. From that time on we had no further trouble with ice, but tempestuous gales and cold

rains impeded our progress, and it was not till the 30th of July that we reached the site of Fort Confidence.

The northern shores of Keith Arm and the southern shores of Smith Arm are scenically uninteresting. Though the Scented Grass Hills which form the backbone of the peninsula separating these two arms of the lake rise 400 or 500 feet above the water, their gentle slopes of cretaceous rocks do not furnish imposing backgrounds. Elsewhere there are many old beaches, which represent successive former levels of Great Bear Lake. They form low ridges, but give little relief to the general monotony of the flat shore line. The stretches of muskeg and prairie which intervene between it and the hills and ridges we found gay with pink roses, purple vetches, and many other wild flowers. The exposed shores are devoid of trees, but inland, in the more sheltered places, are scattered spruce, some of them a foot in diameter at the butt and all of them gnarled and twisted and hoary with the weight of years. Their branches, seeking the sheltering snow of winter, tend to spread earthward rather than skyward. Like Atri in Abruzzo they "climb no farther upward come what may".

As we travelled around Keith Arm and Smith Arm, our larder was well provided with ptarmigan and various species of wild duck. On Deerpass Bay, Sanderson killed an Arctic grizzly—the Richardson bear, to which Great Bear Lake owes its name. He shot at it from the canoe. Wounded only, it rose, and filled with fury, came towards him. A second shot completed the job and relieved our fears. Its skin made soft bedding for its slayer for the rest of the trip. The Indians are, with good reason, terrified of the northern grizzly, which is especially

ferocious when it has young. Sanderson regaled us with stories of canoes overturned by wounded animals and of hunters hugged to death.

Fish, too, were not wanting. In Mackintosh Bay, Camsell and I caught a large lake-trout, which was so powerful that it pulled our canoe around while we were endeavouring to land it. We thought we must have captured a whale, and our disappointment was keen when we found, on cutting it in pieces in order to obtain the weight of the whole with our small balance, that it was only a thirty-six pounder!

Excitement of another kind was provided on the way from Deerpass Bay to Mackintosh Bay. One evening at our camp on Lac des Maringouins, I lighted a smudge to get relief from the mosquitoes while busy with my notes. The rest of the party were carrying the last load of our supplies from the other side of a portage. There was a strong wind blowing. A spark was carried to some dry grass and peaty materials on which some of our bags lay, and before I realised the danger flames were all about me. The harder I tried to beat them out the more they seemed to make headway, for as quickly as the fire was quelled in one spot it broke out in another. The thick acrid smoke filled my lungs as I contended with the unexpected enemy; the struggle seemed hopeless; I felt myself becoming asphyxiated. If I kept on fighting it was without conscious volition. When my companions returned, as they did in a few minutes, they found me overcome and the fire still raging, but fortunately not where my notes and our precious equipment lay. With their united efforts they soon extinguished the flames, and restored my equilibrium.

In the traverse across Smith Arm we landed with joy in our hearts at Ikanyo Island, low and boulder-

strewn, and here we were delayed about half a day. A wind had arisen while we were paddling the six miles which brought us there, and the waves threatened to swamp us. We dared not attempt the remaining nine miles of open lake to the north shore till the water had calmed. The island was devoid of trees, and in places banked with unmelted snow, yet so bright with flowers and so haunted with birds, that we lacked neither pleasing sights for the eye nor strident music for the ear.

We reached the north shore at the mouth of a large stream, flowing from low hills whose blue slopes appeared against the northern horizon. The margin of the lake in this vicinity is deeply indented by bays. Some of them have sand-bars at their lower ends, which separate sheltered lagoons from the main body of water, and are the homes of migratory birds. Here, too, are many old beaches, and there is even evidence to suggest that the secular falling of the water is still taking place. A number of Indian landing-places, each with boulders arranged in the form of a rude quay, to permit of disembarking from frail canoes on the shallow shore, were seen a few feet above and several yards back from the present edge.

The northern shores of Smith Arm provided dreary camping-grounds and poor landing places, and remained scenically monotonous to a point about twenty-five miles west of Fort Confidence. Here exposures of Archean rocks appeared, and became more frequent eastward. Rocky promontories replaced the boulder-filled points, shores bordered by deep water the shallow gravel margins, sizable spruce trees the creeping willows and alders.

When we reached old Fort Confidence where Dease

and Simpson, and Richardson and his gallant companions had made their headquarters, we were on hallowed ground. On that calm and reposeful evening, our reverence for the lonely outpost of bygone days was in harmony with the dignity and beauty of the natural surroundings. The location had been wisely chosen. On the northern edge of a deep narrow channel between a high island and the hilly mainland, the three deserted buildings stood in a grassy flower-decked clearing, among large spruce trees. Their size and luxuriance suggested a more southerly latitude. The buildings have since been burned, but at the time of our visit were in such good repair that they might have been but a few days vacated by their former occupants.

Generally speaking, the Indians of the far Canadian North-West and their Eskimo neighbours have always been unfriendly, and as far as the region east and north-east of Great Bear Lake is concerned this ancient ill will was increased to the height of hostility by the massacre at Bloody Fall on the Coppermine River, in 1771. The Indians who accompanied Samuel Hearne on his quest for copper treasure, and who were equipped with muzzle-loaders, fell upon a band of Eskimos armed with none but primitive weapons, and wiped out man, woman, and child, in spite of the efforts made by their leader to prevent the wholesale butchering. At the time of our visit to Great Bear Lake the memory of this tragic event remained. There was an open feud, and on each side a consuming fear, the Eskimos believing the slaughter might be repeated, and the Indians thinking their enemy might attempt a revenge. For most of the year the Indians kept to the shores of Great Bear Lake, the Eskimos to the Arctic littoral; but during the late summer both ventured into the

intervening Barren Lands, in pursuit of the herds of caribou which roamed those northern prairies in great numbers at that season. They rarely met; the upper waters of the Dease River were regarded by both races as a sort of neutral zone which neither entered with impunity.

Sanderson was almost a pure Indian, and this history probably oppressed his mind when, on the 1st of August, we began our journey towards the valley of the Coppermine and the country of his hereditary enemies. Having established a cache on an island at the mouth of the Dease, we ascended the swiftly-flowing river for about three miles by canoe, and then continued the trek on foot. After about ten miles of difficult travelling, through stunted trees which diminished in size as we proceeded, we emerged into the Barren Lands, and soon entered an area of low quartzite and dolomite ridges with small lakes or patches of swampy ground in the valleys between.

At our first night's camp the howling of wolves in the surrounding hills did not make soporific music. One large grey fellow was sufficiently unmoved by our presence to chase a caribou through the midst of our tents. The next day we continued to journey over rolling country with ridges of solid rock and of glacial moraine, and towards evening reached the left or more southern fork of the Dease, about thirty miles in a direct line from its mouth. Here we built a small cache, to protect a few provisions which would serve us on our return journey, and equipment with which we did not wish to be encumbered. Caribou had been seen in places all day. We were apparently entering the grazing grounds of one of those large herds which the French Canadians of the North call *la foule*. In summer

the caribou are accustomed to assemble in large numbers on the Barren Lands, while in winter they generally seek the shelter of the woods. The antics of the animals we saw suggested to Sanderson the idea that the Eskimos were in pursuit. That some of them were, indeed, in the vicinity was indicated by prints which we discovered on the sandy shore of the Dease, not of the pointed Deerskin moccasin of the Indian but of the rounded walrus-hide shoe of the Eskimo.

On the evening of the 3rd of August, after travelling through country of similar topography to that of the previous day, we reached the banks of a small stream of crystal clear water, which we believed flowed to the Coppermine, and was probably one of the branches of the Kendall. Next morning we plodded laboriously across a plain thickly strewn with boulders. Caribou grazed in hundreds in its more mossy or grassy depressions, pressed through the defiles on its edges, or scattered over the surrounding hills, no more alarmed at our presence than would have been herds of domestic cattle. Towards noon we reached a locality considerably more hilly. It was in places, in fact, almost mountainous, but between the ridges were flat stretches where caribou still lingered, on what Sanderson thought was their migration southward. He suggested at our luncheon camp that, as we might soon pass out of *la foule* and be destitute of game, he should delay for a few hours to cut up the meat of an animal we had just shot. He would join us in the evening, he said, at a point in a fairly pronounced range of hills which appeared to be only four or five miles to the northward. The distance, however, was greater than in the clear Arctic air we had imagined. The travelling,

moreover, was bad, and it was growing late when we four others reached the rendezvous.

Though the night was chilly, the place where we found ourselves, on the banks of a brook tumbling joyfully over boulders and ledges into a larger stream,¹ was so lovely that we soon forgot not only the weather, but an encounter with a polar bear which tried to embrace Tremblay on his arrival, but fled at Camsell's vigorous shouting. The grassy hollow amid the rocks, containing a few ragged spruce trees, was yellow with Arctic poppies, and all around rose rugged hills, bizarre in shape and vivid in colouring. To this spot we gave the name of "Happy Valley". It seemed to us reminiscent of Rasselas, and was certainly to be our last happy camping-ground for some time to come.

Towards midnight, after we had eaten copiously of such caribou meat as we had brought from our noon camp, we became alarmed at the non-arrival of Sanderson. Tremblay was dispatched to a prominent hill behind the camp to fire off my rifle to attract his attention if, as we believed, he was near. It was at this juncture we made two distressing discoveries. Our supply of food was limited to a caribou heart, a small amount of back fat, a tiny piece of bacon, a tin of beef extract, and some tea—not nearly enough for one decent meal for us all. What was more serious, we had only one cartridge. Bunn had left his rifle and ammunition behind at our cache on the south branch of the Dease. Sanderson, who was the hunter of the party, had his rifle with him, and had been instructed to bring sufficient meat for the rest of our journey. In order to reduce weight, I had brought only a small number of cartridges from Great Bear Lake.

¹ This is believed to have been the main branch of the Kendall.

Next morning we held a council of war, to decide whether it was best to return immediately to Great Bear Lake, or to travel farther into the region of mystery which lay ahead and attain the object of our journey. It was elected to proceed. We waded across the larger stream by which we had camped, with the cold, swift water rising above our waists. Reaching its northern shore, we continued over half-frozen swamps through which raced narrow deep streams, and across ridges strewn with angular quartzite fragments which tore our wet deerskin moccasins. After a few hours' walking, Camsell and I, who were ahead, noticed that Bunn and Tremblay lagged. We waited till they joined us. Bunn was a heavy, chunky man and his feet consequently had been the first to show the effects of the arduous travelling. It was clear he was unfit to go on, much as he wished to do so, and it was unwise to leave anyone alone in such surroundings. After some discussion it was decided that he and Tremblay should return in a line as direct as we could indicate, to the site of our cache on the south fork of the Dease. There they would await Camsell and me, who would continue northward for half a day longer. They took with them the rifle and the one cartridge, Camsell and I the small portion of bacon and the beef extract—all the food that now remained.

Soon after we had parted company, a blizzard enveloped the Barren Lands. How that storm raged, how cold and cheerless seemed those Arctic prairies lately gay with flowers, how unsatisfying the fragment of pork we ate, sheltering from the snow behind some rocky crags! A few hours longer we toiled on and then, during a lull in the storm, we discerned what we believed to be the valley of the Coppermine far below us, and the distant outline of the Copper

Mountains. It was futile to go farther. We were hungry, cold and fatigued. We had accomplished our object. From a rough traverse we had made of our outward journey we knew that we had taken a big turn to the northward from our previous easterly course after leaving our third night's camp, and could save much travelling by steering south-west-erly on the return journey to the Dease.

About an hour after we had turned back we stopped to rest. My feet, badly bruised, had given out, and Camsell had torn off strips of the half blanket which we were sharing to bind them. As we sat for a few moments there came a break in the storm and to our amazement we beheld, about a hundred yards ahead of us, the figures of two men emerging from the clouds of snow. At first we thought they must be Bunn and Tremblay, from whom we had parted early in the morning. But as the snow ceased falling and the air became clear enough for us to distinguish them, we saw that they were dressed not in the clothes of civilization but in skins, and that there were not two only but thirty or forty. They must be Eskimos who, for aught we knew, might be as ferocious and bloodthirsty as Sanderson had testified. Hurriedly we decided that valour was preferable to discretion. Linking arms we proceeded boldly towards them. The blizzard again descended, obscuring the spot where they stood. When we got to it not a soul was to be seen. The site of the Eskimo camp, for that it proved to be, was a low hillock, in the middle of a ravine which ended in a bay extending from a good-sized lake.¹ On the flat, gravelly crest were some six or seven small elliptical enclosures, about 3 feet high, built of

¹ Probably Lake Rouvière.

limestone flags turned on edge. Each of these contained some skins, some old seal and walrus hide shoes, and various other articles of furniture and wearing apparel. Little heaps of quartz pebbles were near them, and around the edge of the camp ran a low ambuscade of caribou bones. It was not, however, these evidences of aboriginal culture that interested and pleased us most. In the middle of the camp lay a pile of raw caribou meat, two or three feet high and twice as long, and of this in our famished condition we were not long in partaking. We hastily lighted a fire with some fragments of wood which our unwilling hosts had evidently cherished, and refreshed by a good meal felt braver and better able to examine our surroundings. In the falling snow we had been mystified by some caribou, near-by, which appeared to be strangely quiescent. When once more the storm cleared, we discovered that they were not live animals, but decoys skilfully constructed of bones, moss and skins, and devised to bear a striking verisimilitude to the caribou from which had been obtained most of their accoutrements. We delayed an hour or two, hoping the Eskimos would return to their treasures, but there was no sign to indicate whether they were lurking behind the rocks and watching us, as was probably the case, or had actually fled. Then, taking some of the meat and a pair of old walrus-hide shoes, and leaving in exchange a tin plate and some of our exhausted footwear, we departed.

That night, while the blizzard continued to rage, we stopped for a few hours in a hole in the rocks, taking turns in watching lest we had been pursued. Our resting-place was in a range of high hills lying apparently westward of the stream, which we had crossed in the morning but did not traverse on our

return journey. By two o'clock in the morning we were on our way again. The blinding snow was still with us but the wind, which had guided us in our course the day before, had changed. We wondered at the time if perhaps in reality it had not shifted and it was our compass, drawn by some local attraction, which was at fault. Filled with doubts and forebodings, we decided to trust the compass. We showed wisdom, for after eight hours of trudging and overcome with exhaustion, we reached our old camp on the southern fork of the Dease. It was as we had left it a few days before save in one important detail; a wolf had rifled our cache and taken most of the small amount of meat we had left there for an emergency. Only a few cherished bannocks were untouched. There was no sign of Tremblay or Bunn.

The storm had ceased, the sun was now shining brightly over a snow-covered landscape. We both felt in need of rest and sleep, but under the chilly atmospheric conditions, and in the absence of firewood or adequate bedding, it seemed difficult to warm up enough to permit repose. We were more successful than we had thought would be the case. On a bed of flat stones we lighted a fire of white Arctic heather. This plant when dry makes a fair fuel, but when damp produces a smudge more suitable for driving away mosquitoes than for adding heat. It served to warm the stones to a comfortable temperature, and on the hot but extinguished ashes we spread more heather. On top of this soft bed, steaming from contact with the heated materials below, we lay down, covering ourselves with what remained of the half blanket. We were immediately in a sound sleep. I remember nothing till I awoke late in the afternoon.

To my horror, I found myself alone. Where had Camsell gone? Had he, too, disappeared? Filled with alarm, I hurried to the nearest eminence—a conical hill which commanded a view of the valley of the Dease. Scanning my surroundings, I saw two men approaching. I took them to be Tremblay and Bunn, but as they drew nearer I saw they were Camsell and Tremblay. Camsell had awakened earlier than I, and had crept out quietly to search for game. He had been unsuccessful in his quest but had encountered Tremblay. I asked where Bunn was. At the time Tremblay's replies did not seem evasive or rouse suspicion. "I left him a few miles up the valley; he kept dragging behind. He told me to keep going to get the camp ready for you, here at the Dease. We did not think you would be here so soon."

"Did you get any game?"

"No. Charlie (Bunn) did the shooting; he would not give me a chance. The first time he aimed, our one cartridge missed fire, and the next time he missed the caribou."

We stayed for the night to await Bunn. A sleety rain descended continuously; we were drenched to the skin and numbed with the cold. In the morning there was still no sign of him. As we drank some hot tea and ate a few remnants of meat and bannock, we pondered over what we should do. To hunt for Bunn would be futile. A dense icy fog enveloped the Barren Lands. We had as much chance of locating him as of finding the proverbial needle in a haystack. If we remained we would eat the few pieces of bannock that were left, and there would be nothing for Bunn when he did arrive. We all felt indescribably wretched; to stay seemed to court disaster. Tremblay repeatedly assured us that he had left Bunn

higher up on the bank of the Dease, and had been instructed by him to continue with Camsell and me towards Great Bear Lake without waiting. Bunn knew his way; he had nothing to do but follow the river to its mouth. The course of wisdom seemed to be to get back to the cache we had made on the island near the mouth of the Dease as quickly as possible.

Leaving a note for Bunn, with his rifle and cartridges and the remainder of the bannock, we commenced the retreat about ten o'clock, and the next morning at three were at the cache. How vividly I recall the incidents of that desperately wearisome thirty-mile stretch! Camsell had made moccasins out of the skin of a caribou killed on the outward journey. The jagged rocks tore them to pieces. The walrus-hide shoes that I had obtained at the Eskimo camp were better protection. Even Tremblay, who seemed to have feet with skin like that of a hippopotamus, complained bitterly. When we stopped to rest, as we often did, the cold penetrated us and we had to start again to get warm. We did not follow the Dease but chose a more direct route across country. We steered our course with a compass, often confused and filled with misgivings lest the instrument should be at fault. As we mounted a hill close to the edge of the trees, the weather began to clear, and in the valley below we saw our first musk-oxen. They interested us, but not sufficiently to cause us to deviate to get a closer view of them.

Worn and weary as we were when we reached our cache on the island, our most poignant sensation was not fatigue but hunger. What a meal we had, the best for many a day! We ate too much, and felt sick afterwards. For the rest of the day we lay in the sun, scarcely moving except to bathe our swollen

feet. Early the next morning the shot of a gun resounded from the mouth of the Dease. We thought Bunn must be there. Camsell jumped into a canoe and paddled over to bring him back. We were mistaken. Sanderson was the new arrival. He spun a long yarn telling us how he had failed to find us on the day we parted company before reaching Happy Valley. We believed the story might be a fabrication. Probably as soon as we had left him he had retreated to the south-west of the Dease for fear of the Eskimos. But we needed him greatly and dared not express our suspicions. He came well supplied with meat and showed no fatigue. He said he had seen no sign of Bunn. It was clear that a search for our missing companion must now be made.

The season was already well advanced, and some observations for latitude had to be completed before we started south. I remained at Cache Island to do this work, while Camsell and Tremblay returned to the Barren Lands. They went, so Tremblay assured Camsell, to the spot where he and Bunn had last been together and, favoured with clear weather, were able to scour the country far and wide. Three days later they returned. Their search had been unsuccessful. No trace of Bunn had been found.

One feature of the situation which had been revealed to them in the course of their quest, caused Camsell surprise and concern. At the point where he and I had crossed one of the branches of the Dease on our journey south-westward from the Eskimo camp, the snow which had fallen a few days previously still lingered, and there Camsell had observed that in addition to our footprints were others. Some of the Eskimos whose camp we had visited must have watched us as we slept in the hole in the rocks, and

followed us till they had seen us safely outside their country. On the bank of the river were three caribou bones planted in the ground, and pointed in the direction in which we had gone. We wondered if this mysterious sign had some sinister meaning and if Bunn, while wandering alone, had been captured.¹

It was now the 13th of August, and we had arranged to meet the Indians we had seen at the outlet of the Great Bear River, on the 15th, at the south-eastern end of McTavish Arm—hundreds of miles away by the route we must follow. We dared not delay longer—to have done so in the face of a rapidly approaching winter might have meant the loss of the entire party. We had to depend for food almost entirely on game and fish until we reached a trading post. There was none nearer than Fort Norman on the Mackenzie, or Hislop's Post on Lac du Brochet. Loath as we were to leave without learning Bunn's fate, we knew we had done all we could. At the mouth of the Dease, in case of a remote chance that he lived and reached that point, we left one of our canoes and his equipment,² some tea, some matches and a note, and then with heavy hearts began our journey southward. Often during the anxious weeks which followed did I in dreams again live through the events of the trip to the Barren Lands; and ever my waking thoughts pictured the anguish of our lost comrade overcome by starvation—the fate which we believed the most probable to have befallen him.

¹ In 1912, Harry V. Radford and George Street reached Bathurst Inlet, east of the Coppermine River, from Hudson Bay, and were killed by the Eskimos. In 1913, Pères Rouvière and Le Roux, from the Catholic Mission by this time established on Great Bear Lake, reached the mouth of the Coppermine. As they journeyed back, up the river, the same fate befell them.

²This included his rifle and cartridges, which Tremblay had brought back with him when he returned from the search.

A few days later, having left the well-wooded shores of the vicinity of Fort Confidence behind us, and having skirted the increasingly gloomy southern margin of Dease Arm, we rounded the long, narrow, boulder-strewn point stretching far out into the open lake, known as Cape McDonnel. On the grassy tundra clothing the raised gravel beaches which characterise the low topography in this section, we were able to replenish our meat larder from a bountiful supply of caribou, which were the last we were to see. The extraordinarily clear and icy water adjoining teemed with red-fleshed trout, which gave us some variety in our almost exclusively proteid diet. They were particularly good when smoked.

The country on the northern shore of McTavish Arm eastward from Cape McDonnel remains low and uninteresting to within twenty miles of the north-eastern end, where there is a marked change in the topography. Here isolated hills of solid rock begin to appear, increasing in number to the north-east. These are frequently table-topped, and exhibit abrupt precipices of basalt towards their summits, and more gentle slopes of white quartzite or black shale below. The succession of wide shallow bays of generally even margin, which we had followed from Cape McDonnel, was replaced by a multiplicity of indentations, with deep water bordering the sinuosities of the rocky shore-line. From the top of Rocher Rouge—a prominent hill, much iron-stained and containing some iron ore, situated towards the northern end of the eastern shore—we obtained a good view of the nature of the country. Mural precipices descend to the lake front; a maze of peaks, with rough slopes and commonly of uniform elevation, stretches inland. Between lie swampy valleys, with occasional lakes and patches of forest. The hills are

not generally associated in ridges and seldom rise more than 800 feet above McTavish Arm or the large stream which enters its north-easterly end.

Continuing southward from Rocher Rouge, the rugged topography persists; winding bays, fiord-like in character, extend many miles into the interior; rocky islands, fantastic in shape, in places border the shore; countless channels connect the deeper bays with the open lake, or separate islands from the mainland. The lower and more sheltered places are wooded, the exposed shores desolate and bare. We were wind-bound for several days in Echo Bay, situated in this stretch of shore-line, and found it to be a perfectly land-locked harbour, more than a mile long and of lesser width, surrounded by high hills which descend to the lake margin in talus slopes of coarse fragments, or in precipices of solid rock. The variegated mineral staining—red, black, pink, white, and green—gave scintillating reflections in the deep, transparent water, and suggested a locality to lure the prospector.¹ Towards Conjuror Bay, the long south-eastern continuation of McTavish Arm, the hills diminish in height, but the coast remains rocky and its margin intricate.

Though we made a rough survey as we passed along, the knowledge that winter was approaching pressed us forward. We kept as much as practicable to a straight course, and did not deviate to explore the interminable wanderings of the shore-line. A keen look-out was constantly kept for game. When we stopped for the brief spells necessary to examine the rocks or to make the observations required for our traverse, Sanderson took his gun and set off in search of it. But the largest animal we encountered

¹ It was in this locality that a discovery of pitchblende was made by Gilbert Labine, in 1930, and of native silver in 1931.

along this part of the shore-line was the Arctic hare —larger and more edible than its southern brother.

After we left Cape McDonnel it was almost constantly stormy. There were frequent downpours of rain or sleet, and, as the month drew to its close, light falls of snow. Our progress was consequently slow and erratic. In a rare space of calm weather, or when the wind was off the land, we sometimes travelled 35 or 40 miles in a day; then we might be delayed for hours or even for several days by heavy seas. In vain we looked into every bay for the smoke of an Indian fire. In vain we were led off our course by pyramidal white rocks on the shore, which we mistook for wigwams, or by dark-coloured boulders in the water which from a distance resembled approaching canoes.

On one occasion a trivial accident occurred which might have been subsequently disastrous. As I descended a steep glaciated surface from which I had been taking some observations with a prismatic compass, my well-worn moccasins slipped on the polished rocks. I fell, hurling the instrument before me. It sped onward and dropped into the deep water beyond. It was our only accurate compass, and an hour or two of anxiety followed till it was retrieved with a fishing-line from a narrow ledge on which it had caught, 25 feet or more below the surface. We had reason to bless the limpid character of the water of Great Bear Lake!

On the evening of the 27th of August, after a day of good progress, we reached the southern end of Richardson Island which blocks the entrance to Conjuror Bay. It was at this point we expected to meet the Indians, who had promised to guide us, at least part of the way, on our journey towards Great Slave Lake. It was just the locality Indians would choose

for a camping-ground. In the shelter of a succession of raised beaches grew a forest more luxuriant than any we had seen since leaving Fort Confidence. The sandy shore, the dry mossy slopes, gave the place the appearance of warmth, and invited a sojourn. In the channel which separated the island from the mainland, whitefish of unusual size and excellence abounded. The poles of many deserted wigwams testified that the Indians recognized its merits. But no one was to be seen. The camp-fires had long been extinguished, their sites were overgrown. Nothing suggested a recent visit. The cold and sullen weather added to the bitterness of our disappointment. We were nearly two weeks late, and if the Indians had come they had apparently given us up for lost. Such a fate they probably thought would overtake all white men who visited their inhospitable country.

Next morning though the ground was covered with an inch of snow, we took courage. Perhaps the Indians were waiting farther down Conjuror Bay. A good rest in pleasant surroundings, an excellent breakfast of fresh whitefish, and the discovery of the first raspberries and gooseberries we had seen on our journey southward, drove away the despair of the night before. All that day we scanned the southern shore of Conjuror Bay. On the bank of every island we passed, and near the shore of every bay we entered, we looked for the camp-fires of our expected guides. If they were there they gave no indication of their presence.

At noon on the 29th we reached the mouth of a large stream flowing from the south, which we called the Camsell River and which we thought must be the point of departure of the route towards Great Slave Lake, but without food and without Indians to guide us, we were filled with indecision as to what

course should now be pursued. All we knew about the cross-country route was that from a point near the headwaters of a river entering Conjuror Bay, another river flowed southward to Lac du Brochet. On such vague intelligence, without ample provisions, it seemed rash to attempt so hazardous a journey. Should we, in spite of forebodings, essay what we had always planned to do, or should we follow round the southern shore of Great Bear Lake and descend the Great Bear River to Fort Norman? If we chose the latter alternative we knew there would be no danger of losing our way, and we thought we could depend on fish for food. The main difficulty would be from wind on so open and exposed a shore. At this moment of irresolution Sanderson providentially killed a large cow-moose—the first we had seen. Our doubts fled. We began the ascent of the Camsell River.

To anyone unfamiliar with the characteristic topography of the Laurentian peneplain, it may sound an easy matter to ascend one stream and from its headwaters make a short portage to descend another. But smooth, gently-flowing streams of even grade and comparatively regular width are rare in such surroundings. The usual Laurentian water-course drains a series of basins, varying in size from mere ponds to large lakes. They are frequently labyrinthine in character, highly irregular in outline, and often dotted with innumerable islands separated by a maze of channels. Between the lakes are stretches of river broken by rapids and falls, most of which necessitate portage. The Camsell River we found no exception; rather it showed to a quintessential degree what were to us the exasperating peculiarities of its type. After following a

short stretch of river and making portages, generally short, past cascades or chutes, we would enter a lake, perhaps so large that we could scarcely see its farther side. We would follow the intricacies of one of its shores and, if we were fortunate, discover its inlet at the expected locality near its southern end. At other times, after exploring numerous deep bays and almost encircling the lake, we would find that the river entered not far from its outlet. Again, we were led away from our course by ascending tributary streams. Under such circumstances we were continually losing our way for short intervals. But even when we deviated from the route which we should have followed, so full of lakes was the region that we were able to find our way back to the Camsell by pursuing a generally southerly course. Our rough traverse gave us a good idea of the direction we had followed, and the observations for latitude which we took whenever the sun shone showed steady, if depressingly slow, progress southward.

When we got off our route, when we had to retrace our steps, when it rained as it frequently did, there was much growling on the part of Sanderson and Tremblay, whose intractability had increased after the loss of Bunn. Their disposition required the balancing influence of a third white man. They saw no need for looking after the equipment or the precious geological notes and specimens. If I remonstrated when they hurled my box of supplies roughly ashore at a portage or camping-ground, they would scowl and retaliate with "Le gouvernement est très riche." If I questioned the choice of camp ground they showed their contempt by muttering "Les blancs ne sont pas grand'chose." Their carelessness was infuriating. Sanderson lost one of our two small fish-nets, and did not tell us of it till long afterwards.

They allowed our tin box of matches to remain uncovered in the rain. Fortunately I had a small supply of wax vestas preserved for an emergency, but thenceforth pipes had to be lighted with flint and steel. As we progressed southward we found that the portages were no longer well-used trails. Evidences of human visitation became fewer and farther between; for a few days, indeed, they almost disappeared. It was during this trying and depressing period that Camsell's unwillingness to be perturbed by difficulties was especially helpful. When I became despondent at the possibility of our never finding our way to Lac du Brochet he laughed away my fears, maintaining an unceasing cheerfulness. Though we had every reason for being suspicious of the loyalty of both Tremblay and Sanderson, they worked well; and Sanderson's ability to find a path through an unmapped region commanded our admiration for his native intuition.

The period of our greatest uncertainty was between the 7th and 11th of September. On the latter date we were obliged to make an early camp at a portage which showed no evidence of having been recently used. A cold rain had set in which shortly turned to snow, increasing the wintry appearance of the landscape. The deciduous trees were now nearly leafless. It looked as if the snow had come to stay and the lakes would soon freeze over. Our meat supply was exhausted. We discussed whether or not it would be advisable to stop here, where the country was thickly-wooded and there was an abundance of fish. We would construct snowshoes, and when the lakes were firm, make our way southward on foot. But such plans were suggested when we were wet and cold, and before we had felt the cheering effect of a hot duck stew or a steaming mess of

fish. Moreover, they represented the darkness of despair before the dawn of radiant hope we were about to experience.

A heavy frost occurred that night, but the day broke clear and fine, and later the temperature rose and our spirits with it. During the morning we paddled across the calm surface of a beautiful lake with fairly high hills to the eastward, and in the early afternoon reached a portage better demarcated than any we had seen for some days. An hour or two later, at another portage, we found the site of a camp-fire extinguished not more than a few days before. Shortly afterwards we paddled into a large lake. Before us lay the search for the entering river. This prospect would have dashed our hopes had we not soon espied in the distance, rising against a background of clear sky, the thin columns of smoke from an Indian camp. We were not slow in covering the several miles which intervened.

At the camp were three or four wigwams inhabited by Dogribs, who traded their furs at Fort Rae or at Lac du Brochet. Never have I received a warmer welcome or one more appreciated. With rapt attention they listened to the story of our experiences and, filled with wonder, questioned us. How had we escaped from a region of bloodthirsty men and women? Why had we not been devoured by wild beasts? These, no less ferocious than the natives, they assured us, swarmed round the shores of the great lake to the north. We marvelled at this point of view. The wild beast to which they referred was evidently the Arctic grizzly, but the dangerous people could be no other than the Hareskins, belonging to the Indian tribe nearest akin to the Dogribs and speaking an almost identical language! The unknown, which is ever an incentive to civilized man,

is often merely a source of superstitious terror to the savage.

Our new friends gave us the freedom of their camp, and overpowered us with hospitality. A feast of dried caribou meat and pemmican was prepared in the largest wigwam, and for hours we sat round the fire with the savoury dishes piled high in front of us. While we gorged, Sanderson had to repeat for the benefit of later arrivals the more striking episodes of our journey. Meanwhile, the squaws, unwilling to miss any of the news, crouched in the smoky background and worked vigorously at mending our torn garments. Those which we could not discard with decorum received attention during the night as we slept. Early the next morning, with rehabilitated wardrobes and laden with dried meat, we departed, taking with us two of the finest young men of the little band to guide us.

From the time of our meeting with the Dogribz our route onward was an easy one. During the next few days we continued to ascend the Camsell or pass through its lake expansions. Here and there we stopped at Indian encampments, whose inhabitants vied with our first friends in the cordiality of their reception. Not one of them, however, would willingly be photographed; I had to snap them as they fled. They considered the camera a diabolical instrument, which by reproducing their likeness would capture their souls. On the 14th we reached the headwaters of the Camsell, and crossing the separating height of land by a chain of muskeg ponds, entered the waters of the Marian River, which we were to descend towards Great Slave Lake.

Though the Marian has few expansions of appreciable size, its swift current frequently slackens and the river meanders through swampy meadows, which

at the time of our journey were being visited by flights of wild duck. Our guides did not waste their precious ammunition on such small game, but obtained a plentiful supply with bows and arrows, using their primitive weapons with a dexterity and adroitness which filled us with admiration and amazement. Nor did these simple natives at that time make their fish-nets from cord purchased in the trading stores. They showed us how they fashioned stronger and more effective material out of willow bark.

Travelling from before sunrise till darkness enveloped us at eight in the evening, we made rapid progress southward, passing the mouths of the Emile River flowing from the Barren Lands to the north-eastward, and soon afterwards that of la Martre—the outlet of a chain of large lakes to the westward, including Lac la Martre. The Marian was now a fine large stream, with portages past its rapids so well-worn by moccasined feet that it was clear we had reached a highway where routes converged on their way to a central meeting-ground. On the evening of the 17th we camped at the north end of Lac du Brochet. Before us, resplendent in the light of the setting sun, rose the rocky crest of the cleft mountain, where had come the vision inspiring the journey we had just completed.

Next afternoon, in the face of a warm southern wind, we arrived at Hislop's Post, and received from the traders there a welcome which, in its cordiality and uproariousness outdid the character of the weather. Our friends at the little settlement had known of our trip, and as we were long overdue had become concerned as to our welfare. Flags were flown, successive volleys of guns were fired, the dogs howled and fought in unison, feasts of white man's

food were spread before us. On so truly joyous an occasion, with the trials of many weary days behind us, it was no wonder that we sat up most of the night with our kindly hosts, recounting the story of our wanderings, and listening to the gossip of Great Slave Lake.

Having reached this outpost of civilization, we regarded the difficulties of our expedition as past. The remainder of our journey was to be over familiar ground. Stopping for a few hours at Fort Rae, then situated about 20 miles southeast of Hislop's Post,¹ we crossed Great Slave Lake to Resolution, on the south shore. Thence, Camsell and I, having divested ourselves of Tremblay and Sander-son, continued our way up the Slave River, at first unattended, but later accompanied by Indians, whose services we secured on our journey.

On this stage of our trip we had one slight mis-adventure which all but proved as disastrous in its consequences, as did the upsetting of Joliet's canoe in the rapids of Lachine. About forty miles above the mouth of the Slave we met a small steamer, with an old friend at the helm. Desiring to facilitate our journey southward, he reversed his course, towing our canoe at the steamer's side while we went on board for a chat. The wash from the larger boat filled the smaller craft and it swamped. Fortunately, the situation was discovered in time. The canoe did not overturn, and the rope by which it was attached did not break. The canoe and the heavier equipment, including the precious notes and rock specimens which had remained in its bottom, were

¹ The present Fort Rae occupies the site of Hislop's Post. The former location on the north-west arm of Great Slave Lake was abandoned by the Hudson's Bay Company, as it was found that the Indians were more readily intercepted at the point further north.

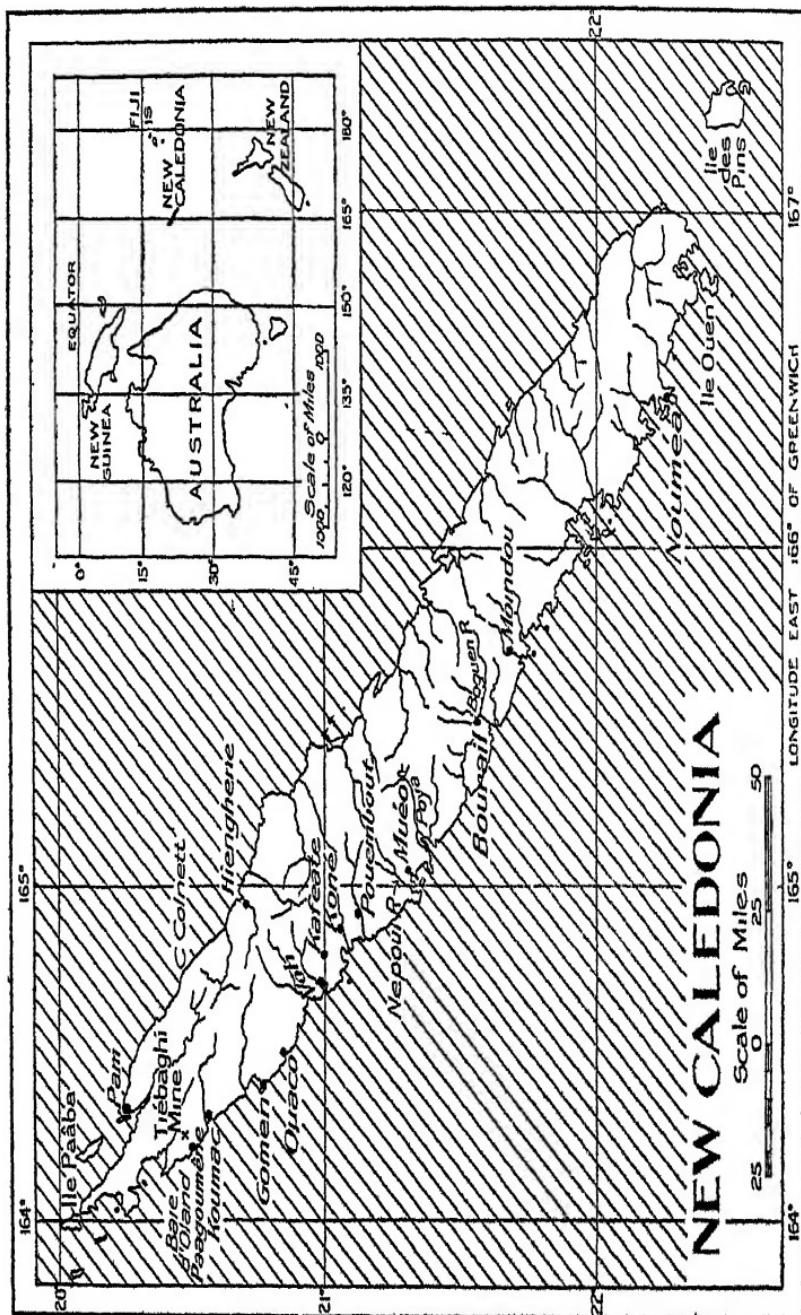
pulled on board, and the lighter bags which had floated away were quickly retrieved.

On the 12th of October we reached Chipewyan, and there we remained for nearly six weeks waiting for the ice to form. When travel across frozen surfaces was practicable, we left, by dog teams, for Lac la Biche. Two other parties, bound for the same destination, accompanied us. Their company enlivened the monotony of nearly three weeks' wearisome snowshoeing by river and lake, through forest and swamp. At Lac la Biche civilized methods of transportation began. We travelled to Edmonton with horse teams.

Some months after our return the winter packet brought almost incredibly good news from Fort Norman. Contrary to all our fears, Bunn was safe. This was his story. Crossing a boulder-filled river-bed he had sprained his ankle. He called to Tremblay, who was ahead, to wait for him, but in vain. The latter turned round, saw his comrade's predicament, but paid no attention to his cries. There had been bad blood between the two men, it appeared, ever since a quarrel at the rapid in the Great Bear River, in June. Had a chance come for Tremblay to get his revenge, Bunn wondered? He was nowhere near the valley of the Dease, where Tremblay had told us he had left him. He had no food. The few watery blueberries he found tantalized rather than alleviated his hunger. His uninjured foot, bruised and lacerated, gave him scarcely less pain than the other. In the almost unceasing snow-storm he lost his bearings. The will to live was strong, and for days he struggled against exhaustion and starvation. At last, dazed by his agonies, he was about to give up the fight, when miraculously he fell in with a small band of Hareskin hunters. They

had come to the Barren Lands in search of caribou, by a river flowing to McTavish Arm. Had Bunn been a few hours later he would have missed them altogether, for they were on the point of commencing their return journey to Great Bear Lake. From McTavish Arm Bunn journeyed with his rescuers round the northern shores of Great Bear Lake, and down the Great Bear River to Fort Norman. As they were travelling along the northern shore of McTavish Arm they must have missed us by a hair's-breadth. At the mouth of the Dease they found the canoe, the supplies, and the note we had left there in what had seemed to us then the vain hope Bunn might still live. His loss, his rescue, his passing us on the lake—what a strange sequence in "Life's uncertain voyage".¹

¹ *Life's uncertain voyage.* Shakespeare: *Timon of Athens*, Act. V, Sc. 1.



CHAPTER III

THREE WEEKS IN NEW CALEDONIA

Et aujourd'hui encore, après plus de dix années écoulées, je garde vivantes les impressions que j'ai recueillies sur cette terre, lambeau d'un continent disparu, et les images de ses belles côtes et de ses récifs merveilleux.¹

W. M. Davis

WHOMO can visit New Caledonia, the distant Pacific colony of France, without retaining vivid memories of the encircling coral reefs and of the spacious lagoons lying between them and the island's beautiful shores? Who can travel there without remembering the gentle-sloped mountains, the fine rock scenery, and the deep fertile valleys? Who can sojourn among the heterogeneous population without being interested in its history?

The traveller approaching the island from Australia on his first voyage there, looks eagerly eastward. He sees the dim outline of the mountains against the sky, the long line of breakers surging whitely along the reef. His steamer enters the lagoon by one of the many passages. The turbulent Pacific is left behind, smooth waters are about him, in front lies a new and fascinating land.

Midway between New Zealand and New Guinea, and between Australia and Fiji, New Caledonia is (roughly speaking) a thousand miles from each. Though but a speck on the map—a fragment in the immensity of the Pacific—it is in fact one of the world's larger islands. Remnant of a long-departed

¹ "Les côtes and les récifs coralliens de la Nouvelle-Calédonie." *Annales de Géographie*, 1925, p. 244.

continent, with its present length of 240 miles and average width of 25 miles, it is now much smaller than formerly.

Apart from inextensive lowlands surrounding the bays and spreading for considerable distances along the numerous meandering streams, the island is mountainous—a confused jumble of peaks and ridges rising to heights of 4,000 to 5,000 feet. This elevated midrib, disposed in a north-west and south-east direction, parallels the island's principal dimension and, indeed, explains the continuity of its existence.

"Clear around the island, a white and misty girdle is drawn on the blue sheet of the Pacific: it is the ring of reefs, the line of coral breakers, over which the sea breathes its eternal lament."¹ Thus Augustin Bernard writes of the coral reefs that surround New Caledonia, and extend 160 miles beyond its north-western extremity and upwards of 40 miles from its south-eastern point. The reefs skirt the south-western shore almost continuously, but on the opposite side of the island they are more interrupted. They form a feature not only of unusual scientific interest but of commercial importance as well. Situated from two to twelve miles from the shore, the remarkable barrier protects the lagoon from the storms of the Pacific, and permits navigation for large ships in calm waters along much of the island's coast line.

Ile des Pins and Ile Ouen to the south-east of New Caledonia, and Ile Paâba and other islands to the north-west within the coral reef, indicate the extension of the mountainous backbone of what is locally described as the "mainland". Disposed in a line

¹ Translated from "*L'Archipel de la Nouvelle-Calédonie.*" Augustin Bernard, Paris, 1895, p. 53.

parallel to the main axis and about 70 miles to the north-east are the Loyalty Islands.

Cape Colnett, on the north-eastern shore of New Caledonia, named after one of the sailors of Captain Cook, recalls the discovery of the island by that great traveller in 1774, and the supposed origin of its name from a resemblance to Scotland noticed also by later travellers. The French appropriated the island in 1853 and in due time, following the course pursued by the British in Australia, made it the base of extensive convict settlements. Since the turn of the century no criminal or political prisoners of France have been dispatched to its distant shores, but many of the *déportés* of former days were not permitted to leave even after the new order became effective.

It is not usual for the modern city Frenchman, unless he be a missionary, to bask happily in sunshine too far removed from the boulevards of Paris, and even the countryman does not with cheerfulness protract his absence indefinitely from his beloved motherland. Owing to this inclination to stay at home, and perhaps to the effect on the adventurous homeseeker of the Colony's sinister origin, New Caledonia does not lure to its shores the number of settlers its manifold attractions would seem to dictate.

Until a few decades ago, New Caledonia supplied the greater part of the world's chrome, cobalt and nickel ore. But how often does discovery in one part of the world change the trend of events in another. How often on the romantic stage of human endeavour does the geographic setting of any particular type of activity shift through chance development. Chrome is still an important article of export, but the finding of cobalt in Ontario caused the numerous little mines worked for that element to

languish, while the development of the great Sudbury nickel deposits in the same Canadian province, and the improvement in that locality of the metallurgical practice for the extraction of the metal from its ore, have reduced the export of nickel from New Caledonia to a relatively insignificant percentage of the world's total.

Nouméa, the capital and principal port of New Caledonia, is situated on the south-western coast a short distance from the extreme south-eastern point of the mainland. Twelve miles distant is the passage through the reef on the direct route from Sydney. Thither in March, 1911, I had been travelling by a comfortable steamer of the Messageries Maritimes. Among my fellow-passengers were many familiar with the island's past. As the boat threaded its way towards the port among numerous islets which dot the surface of the lagoon, they pointed out the old fortresses, grim and forbidding even in the bright afternoon sunlight. These provided a fitting background for hair-raising stories of attempted escapes through shark-infested seas; of terrible, almost forgotten, crimes committed by both prisoners and warders; and of thrilling adventures rivalling those of the Australian classic, *For the Term of his Natural Life*.¹

At the quay it seemed as if the entire population of the island had come to meet the steamer. Polyglot, varied in colour, diverse in age and size, they scrambled on board before we had time to disembark. The exits were clogged with dishevelled humanity and its impedimenta. The confusion almost equalled that existing on a New York wharf, after the passengers are landed from a great liner. Meanwhile, in

¹ *For the Term of his Natural Life*, by M. A. H. Clarke. London, 1885.

spite of the babel, we on the steamer exchanged greetings and even carried on protracted conversations with our friends on shore.

Twenty years ago Nouméa aspired to be a miniature Paris. It did not succeed. Its tropical location, the character of its population, gave the little city an individuality of its own. Yet there were distinctive national characteristics, apart from the common bond of language, which reminded one slightly of the French capital. The principal streets laid out on generous lines and planted with flamboyants and other tropical trees were faintly reminiscent of the Champs Elysées. The restaurants spreading outward from mangy buildings refreshed a gay throng at little tables on the edge of the roadway, as do similar establishments in so many sections of Paris. The odours of garlic and of other strong herbs and condiments lurked in alleys and windless corners, carrying the flavour of Montmartre.

While the general atmosphere of Nouméa was one of squalor, the untidiness of the streets was mitigated by the gay flowering creepers growing round the stucco houses and over their corrugated-iron roofs. The cathedral and the museum were imposing, and would not have discredited a larger centre. A population less homogeneous than that of the city could scarcely be imagined. Not only the motherland but every part of France's wide-flung empire had sent its contingent of convicts, many of whom now enjoyed all the liberty that residence within the colony provided. These, with the nationals of almost every other country under the sun, filled the streets and cafés, and gave a more cosmopolitan spice to society than one would have expected in so small a town. One did not hope that such a community,

situated in the lazy environment of the tropics, could be perfect in morals or devoid of crime, but simple vice seemed mollified by its Latin complexion, and a well-disciplined *gendarmerie* maintained order against more serious crime.

The Hôtel Constans, the principal hostelry at the time of my stay, did not fill the visitor with enthusiasm, but the courtesy of the host did much to offset the defects of its appointments and cuisine. During my sojourn in Nouméa, I was the guest of a genial Irish merchant who lived in the environs of the town, in an attractive house surrounded by hibiscus, bougainvillea, and other gaily-coloured plants, and to this kindly gentleman I was indebted for my introduction into the ways of the country. Local etiquette required the newcomer to make official visits as soon as possible, and on these occasions it was imperative that heavy formal dress be worn. Never shall I forget how I sweltered in that attire as, led by my sympathizing and perspiring but determined friend, on the day after my arrival, I called on various dignitaries, including the Governor, the Director of Mines, the Director of the Penitentiary, and the General Manager of the Société de Nickel—at that time controlling the principal industry of the island. Nor shall I forget the cordiality of the reception I received; its warmth in the pleasant coolness of the darkened rooms rivalled that of the atmosphere without.

The object of my journey to New Caledonia was to inspect certain mineral occurrences at Koumac, situated on the south-west coast of the island not far from the north-west end, and about 175 miles from Nouméa. Everyone who knew anything about the island urged me to travel by sea; to go by land was to court trouble. Railways were confined to short

lengths here and there leading from mines to the coast, and to the somewhat more ambitious line extending a few miles inland from Nouméa. The roads were generally bad and in some places the merest tracks. Certain localities were infested with brigand bands, made up of escaped convicts and their native satellites. There were no decent stopping-places. These and other objections did not overrule my desire to ride along a fascinating coast, to get passing glimpses of numerous mine workings among the maze of hills, to mix with an unusual assortment of fellow-men. Accordingly we chose the land route, and arrangements were made for our transport by motor-car to Moindou and thence by horse-trap to Bourail. At Bourail, about 70 miles north-west of Nouméa, if we were lucky we should get riding horses. We were warned particularly against the settlement of Poya—it was a nest of thieves and other dangerous folk. Serious complications would inevitably follow close contact with the place. With me were R. J. Morgan, a young mining engineer, and Lee Johnston, a native of New Caledonia, who thoroughly understood the nefarious ways of the land of his birth.

The highway from Nouméa to Moindou was good and we motored the 55 miles or so in about six hours, including a pleasant stop for lunch at the tiny settlement of Tomo. The journey onward to Bourail was more tedious. At Moindou only one horse and trap awaited us instead of the two outfits we had expected. While Morgan was scouring the countryside for the missing conveyance, Johnston and I proceeded with part of the luggage to Bourail. The wretched animal was scarcely able to pull the trap and our equipment, so that we had to make most of the fifteen miles on foot. ,

The topography of the country between Nouméa and Bourail is more or less typical of that of all New Caledonia. The smooth well-graded slopes of the mountains forming the backbone of the island are scored by gullies and ravines, and descend by extended and gentle ridges and spurs to the sea-shore. Into these highlands are cut the deep valleys of the numerous streams, flowing sluggishly near the sea but with rapids and even waterfalls at their headwaters. Close to the sea-shore some of the lowland patches are relatively spacious, but they narrow rapidly towards the elevated hinterland. Owing to the subsidence of the land the lower parts of the valleys all along the coast have been drowned, providing a succession of harbours within the widespread shelter of the lagoon.

The road from Nouméa to Moindou led up and down over a succession of long wide spurs and narrower lowlands, where tiny villages, each with its quay, clung to the shore. In the valleys were the whitewashed houses of the *concessionnaires*. Near them widespreading banyans grew, giving shelter to man and beast. Small plantations of cotton, coffee and banana, occasional oranges, mangoes and paw-paws gave the lowlands an air of settled civilization. They contrasted sharply with the tussock and lantana-covered slopes of the intervening hills. Here and there were clusters of the grass-covered beehive-shaped huts¹ of the aboriginal Kanakas, with cultivations of taro and yam. On some of the lower slopes grazed herds of cattle. Copses of guava varied the grey-green "carpet of sensitive plants"² which edged the roadside. The blue waters of the

¹ As far back as the eighteenth century these huts were vividly described by Captain Cook.

² In *Southern Seas*, by W. Ramsay Smith: London, 1924.

lagoon shone between the stately trunks of the coconut palms which bordered the sea-shore. How fortunate for the South Sea Islanders that their cultivation requires so little effort!

"The Indian's nut alone
Is clothing, meat and trencher, drink and can,
Boat, cable, sail and needle, all in one."

Between Moindou and Bourail part of our route followed along a treeless ridge, between the branching valleys of the Moindou to the south and the Boguen to the north. The leisurely gait we were pursuing gave us opportunity to admire the spread of mountains to the eastward and the lagoons to the westward.

The open valley of the Boguen with its scattered houses, its banyans, its pools and blue water-lilies, looked an inviting place to footsore travellers descending a monotonous, meandering trail, and pleasing it proved to be. There were friendly people in the squalid settlement of Bourail, and the Hôtel Pulli, nestling close to an ambitious Hôtel de Ville, provided an excellent dinner, a good bed, and our last bath for some time to come. Here were confirmed the disquieting reports of conditions at Poya, some thirty miles beyond. Having engaged riding horses, a pack animal and a Kanaka boy as driver, we prepared for an early start next day, so that we might be well beyond the dreaded locality before nightfall.

Soon after dawn the energetic *hôtelier* had us on our way along a beautiful straight road, which for five or six miles led through coffee and cotton plantations. Then leaving the cultivations behind we took to a rough horse track which, wandering over tussock-clad hills and across narrow brush-filled valleys, in time brought us to the Poya. Early in

the afternoon when we supposed we were within five or six miles of the river, Morgan and Johnston were dispatched ahead. They were to push on as rapidly as possible, and pitch camp at a safe distance beyond the settlement of sinister repute. The Kanaka and I were to follow with as much speed as the slow-moving and troublesome pack-horse would permit. Hardly had they left when the sky, lately bright and smiling, became dark and overcast, and soon, with the suddenness characteristic of rain-storms in the tropics, we were enveloped in a down-pour which lost no time in assuming cloud-burst proportions. The atmospheric excitement increased the obstreperousness of our pack-horse, and it required the united efforts of the Kanaka pulling in front and myself prodding from behind to urge the beast forward. Meanwhile the fringe of waving coco-nuts which marked the valley ahead seemed tantalizingly to move farther and farther away.

Late in the afternoon, dejected, weary and drenched to the skin, we reached the Poya. A dismal prospect greeted us. The river was in raging flood and unfordable. The Kanaka, with whom I communicated by signs, led the way down the river bank to a collection of sodden grass huts. Among these miserable *paillettes* was a larger establishment, the roof of which extended for perhaps fifteen feet beyond the walls, producing an earth-floored shelter. Beneath it in a steamy foetid atmosphere was a group of drunken dark-brown savages. Naked or semi-naked, they were engaged in various frenzied entertainments in the intervals between swilling the alcoholic decoction with which they seemed liberally supplied. Some chanted in monotones to the accompaniment of tom-toms. Some danced wildly or stupidly, according to their degree

of intoxication. Others kept time with their filthy swaying bodies or waving limbs. I approached and asked them where the river could be crossed. They leered and hissed at me, but made no intelligible reply. At this juncture there emerged from within a tall and handsome negro of ebony blackness, immaculately dressed in white ducks. He addressed me in excellent French, said he had talked with my companions before they crossed the river some hours earlier, and from what they had told him had been expecting me. He hastened to add that there was now no chance of joining them and that I must remain as his "guest". His manner was so malevolent that there was little reason to doubt that by "guest" he meant prisoner, and that at best I should have to disgorge handsomely before being allowed to proceed. As we were chatting, the negro was joined by a younger brother, also spotlessly attired. The newcomer, no more cordial than the first, was a victim of elephantiasis. His truculent expression boded ill for my safety. When I congratulated them on their fluency in French they exclaimed, "Why not, are we not Frenchmen? We come from Réunion."

More to distract my attention from my unpleasant predicament than with any other object, I stooped to examine a large piece of copper ore which lay near the entrance to the building. "Do you know anything about minerals?" they asked. I told them I was a geologist. Immediately their attitude changed. They had long been hoping, they explained, that someone of my profession would come that way—they did not say fall into their hands—to give them the information they were seeking. When I had indicated the nature of the mineral, had listened to their description of a deposit in the adjacent back

country, and had given them advice as to its exploration, our relations became so cordial that they invited me within, and showed me the apartment they proposed to put at my disposal during my stay. It was dank, foul and miasmatic; the chickens (shortly to be served as *volaille*) scurried from beneath the bed as we entered; water trickled down the walls, forming pools on the earthen floor; but its shelter was better than the soggy undergrowth outside, and it betokened a hospitality which I hurried to accept as an evidence of goodwill. Could they do anything for me? "A change of clothes from my pack." It was immediately forthcoming. Anything more? "A drink of coco-nut milk." The elder brother clapped his hands. A naked aboriginal appeared. Through the window I saw him shin up a dripping palm, and in a few minutes a large glass of the fresh and invigorating juice was handed me. What else could they do for my comfort? "Could someone be sent to find Johnston and Morgan and bring them back to share the comfortable shelter?" Again the elder negro clapped his hands, again the Kanaka boy appeared, explanations followed, and soon we saw him swimming his horse bareback across the swollen stream. In less than an hour he returned bringing my two friends with him. We were now a united and happy party.

In an hour or two dinner was ready, and what a meal for such a place! It would have done credit to the Café Marquény in Paris. *Hors d'oeuvres, consommé, volaille, omelette aux fines herbes*, each wonderfully prepared and beautifully served, to the accompaniment of excellent wines. We sat at a long table with one of the brothers at each end, while a Kanaka boy waited. Our hosts grew more and more vivacious, more and more cordial as the meal

proceeded, but a surprise was in store for us even greater than the steady improvement in their attitude. When we had reached the coffee and liqueurs, a door at the end of the dining-hall opened and, to our amazement, a white woman entered. She reminded me of the ample, friendly, quick-spoken women that one sees selling flowers in the Bois de Boulogne. The brothers rose and bowed and we did likewise. Then when she had joined us at the table we resumed our places. She remained with us for the rest of the evening chatting about France and her native Alsace. The negroes showed her the greatest courtesy and she was no less civil to them. They addressed her as "Madame", and she was equally careful to style each of them "Monsieur". Next morning I found myself alone with her for a few moments, while the brothers were putting forth their best efforts to facilitate our departure. Much as I wished to solve the mystery of her presence in such surroundings there was no opportunity for conversation. She had only time to whisper that she wanted help before the black men, with faces full of suspicion, returned. Later I learned that she was the widow of a convict, and had been acquired by the brothers as their mistress after her husband had been gored to death by a bull. Though I intervened in her behalf on my return to Nouméa, the authorities there failed to evince much sympathy.

When we forded the Poya we found it no longer turbulent and terrifying. It was as peaceful and changed in the tenor of its course as was the demeanour of the negro brothers who dwelt with their wild Kanakas on its banks. North of the Poya for a few miles our trail was poorly defined. Passing through swampy country it mounted over rolling downs. The bright green grass, the patches of low

bushes and the herds of red and white cattle grazing peacefully, provided a scene of pastoral tranquillity in contrast to the rugged mountains of serpentine to the eastward, and a generally wild environment.

Crossing the sluggish Ouha, about fifteen miles beyond Poya, we reached the *gendarmerie* of the Muéo. The clean white buildings and the surrounding wall—the general fort-like appearance—reminded me of one of the larger old-time Hudson's Bay posts in Canada. Muéo and our next stopping-place, Pouembout, were connected by a sinuous trail about fifteen miles long, passing over the notorious Plaine des Gaiacs, and further north through the more pleasing country occupied by the valleys of tributaries of the Népoui and the Pouembout. The Plaine des Gaiacs, a mud flat covered with low scrubby trees resembling mangroves, owed its evil reputation to the soft gumbo-like nature of the bottom, and to the reported presence of a band of Arab robbers. We were regaled with stories of travellers who had been bogged there, of others cruelly treated and stripped of their possessions by the brigands. We escaped both Charybdis and Scylla.

Emerging from the Plaine des Gaiacs, we rode up a yellow grass slope bathed in the changing light of the setting sun, to a small snow-white hut nestling close to the shelter of dusky mountains. Here we were to change horses, returning those we had brought from Bourail and taking fresh animals from Pouembout. In the little cottage lived an interesting pair, a thin wiry Spaniard whose stately manners and courtly air were worthy of old Castile, and a Frenchman from Angoulême, more vivacious and friendly than his boon companion but no less distinguished in his mode of address. One wondered why two such gallant gentlemen had found their way

to this secluded spot. In New Caledonia one learned not to seek for motives.

We had gay company that evening at the little public house at Pouembout—a place wretched enough, but palatial among the neighbouring huts. The mayor, who hailed from Provence, and a sprightly light-bearded French prospector, joined us at dinner and enlivened the occasion with much jollification and ribald laughter. Nor were these the only merrymakers. I remember a garrulous Portuguese and others who produced a festive atmosphere without. The merriment, in fact, was contagious. It spread to the insects within my room. Huge and alarming beetles champed about, and an enormous spider at the sight of me proceeded to disgorge an immense progeny, which covered the bed with scurrying blackness.

Onward from Pouembout to Voh, where we were to spend the next night, we were guided by an almost naked wild-looking savage who carried my pack, apparently unconcerned by the cords cutting deeply into the smooth outlines of his brown back. Our path led over low bare hills, giving us a glorious view. To the east rose the maturely dissected mountains, ridge above ridge, with here and there an isolated peak. To the west stretched the flood plain of the Pouembout, the lagoon with a number of low islands, and farther away the coral reef with its long line of breakers upflung by the constant surge of the Pacific. After passing the valley of the Koné and its coffee and cotton plantations, our route took us gradually into higher country, mounting over a steep serpentine ridge gay with flowers and known as the Kaféate. The locality was described as the scene of many robberies by the Arabs, who in this lonely place found it easy to entrap rich passers-by and retire

with their booty to their fastnesses in the mountainous hinterland.

Soon afterwards we entered the valley of the Voh, and received a cordial welcome from the manager of the Kataviti nickel mine. Its workings could be seen on the slopes of scarred and iron-stained hills a few miles to the north-east. We had the pleasure next morning of a change from the miserable animals with which we had been supplied since leaving Bourail. Trim well-fed horses took us without any difficulty to the crest of the ridge where the mine was situated. Its deposits appeared to resemble many other occurrences of nickel silicates found at various widely distributed localities in New Caledonia. At the Kataviti there were several shallow ore-bodies, six to twenty feet thick, each occupying considerable lateral extent beneath residual red and brown clays. The ore was worked in open cuts, and in these struggled a cosmopolitan collection of scantily attired miners—Arabs, Chinese, Japanese, Javanese, Kanakas and other nationals, varying in hue from yellow to black through all the shades one sees in the East. Working amid the brightly coloured oxidized nickel ore, green, blue, brown, and sometimes red, they jabbered in many tongues, and enjoyed together the common language of laughter.

Returning to Voh, we continued our journey to Ouaco by gasoline launch, in order to avoid what was described as a particularly tedious ride over a stretch of low coastal plain. The director of the meat-preserving works at Ouaco provided us with horses for the trip to Gomen. This small settlement on the gravel banks of a swift-flowing stream had nothing to recommend it beyond the stately coconut palms surrounding the low buildings. Repose at the little hotel was not easily attained. As at

Poya, I was greeted by drunken Kanakas who crooned savage songs to the accompaniment of primitive musical instruments, making night hideous with their barbarous antics.

The trail from Gomen to Koumac led across flat or nearly flat country covered with tussocky grass and the ubiquitous white-barked niaouli. To these low-growing eucalyptus trees the general absence of malaria in New Caledonia has been attributed. At all events, the absorption of water through their roots promotes better drainage. They also yield a medicinal oil, and their bark has many uses. Here and there we skirted isolated hills—outliers of the mountains to the eastward. At lunch we were lavishly entertained by a genial cattle rancher, whose ménage was one of the most comfortable we visited in the island. While the elaborate meal was proceeding, music was supplied by the two daughters of the house and their governess. One did not look for such an accompaniment in the wilderness of New Caledonia.

Koumac became our headquarters for the next few days while we were making geological investigations in the vicinity. A dreary group of corrugated-iron and grass roofed huts surrounding a rude courtyard formed the settlement, but the proprietor and his Bourbonese wife were kindly, the food was good, and the little Javanese servants attentive. Scantly attired Kanakas, who rode or walked into the enclosure selling coco-nuts and other local produce, furnished diversion at nights in addition to that provided by the mosquitoes. The limestone crags in the neighbourhood, rugged in outline and often grotesque, differed from the more smoothly contoured landscape to which we had become accustomed since leaving Nouméa.

We left Koumac on the morning of the 7th of April and rode to Paagoumène, a small settlement straggling along a picturesque palm-bordered bay, on which a boat of about 2,000 tons was riding at anchor. It was being loaded for New York with chrome ore from the Tiébaghi mine, situated high on the adjoining hills to the north-east. The Scottish captain of the ship came to meet us as we approached, hoping we could speak English—a language which no one in the locality seemed, he said, to understand or be willing to use. Later we were joined by the manager of the Tiébaghi mine and another official, and in this genial company set out to visit the workings. The route for a mile or so crossed a low plain bordering the sea. Then it began to rise, slowly at first but more rapidly later, by a zigzag track past a small but picturesque waterfall, near deserted cobalt workings gay in colour, and finally along abrupt precipices, to a height of about 2,000 feet. Here we reached an almost level plateau, said to be about a mile in width and two or three times as long, strewn with a thin coating of red clay and ironstone. The chrome ore occurred in a string of lensoid deposits, the largest of which, about 350 by 125 feet, was in process of being mined in a series of oval-shaped galleries surrounding an open cut. The ore was withdrawn through tunnels entering the slope of the hill, and thence carried by aerial tramway to loading hoppers on the sea beaches.

Returning to the sea-shore, we rode northward in the rapidly descending twilight along the hard sand of the beach bordering the Baie d'Oland, past hill-sides thick with niaouli, through settlements astir with lounging natives and yapping curs, by occasional clumps of mangroves, to the point where the small steamship, *La France*, was anchored. Upon

this craft, concerning whose fickle movements we had for some days been in doubt, we were first to travel to Pam, situated at the mouth of the Diahot near the extreme north-west end of the island, and thence, after it had unloaded its cargo, to make our return journey to Nouméa along the south-western shore.

The good ship *La France* continued travelling most of the night, threading its way among the coral reefs. The rising sun saw us rounding the bare slopes of Ile Paâba, and looking southward to the barren hillsides which rise above the broad valley of the Diahot. By ten o'clock we had anchored at Pam, where the smelter treating the ore from the Pilou copper mine was situated. The mine, some five or six miles distant, was at that time languishing. The manager said that the deposits were nearly exhausted and that the remaining ore was of such low grade that it required careful cobbing. At this activity quaint little Javanese women were busy, looking not unlike hens scratching in a dung-heap.

Had I not been pressed for time I should have liked to delay long enough at the north end of the island to visit Hienghène. Here occur the so-called Towers of Notre-Dame. Fashioned by wind and wave from calcareous rocks, the pinnacles and grottoes form, it is said, a veritable cathedral of nature.

Next morning as the sun appeared in radiant splendour above the horizon, bathing the bare hill-sides in a wonderful evanescent glory, our transport *La France* left on a calm sea with a load of copper matte for Nouméa. From the standpoint of filth and evil smell the ship stood high in its class. The most persistent stench was that of decaying copra, but this was only one in a great *pot pourri* of odours among which one could detect many others—rotten

bananas, goats, stale garlic, and varied humanity. There was not a spot on the 400 or 500 ton carcass which approached cleanliness, but its last load of soft iron ore taken from Tiébaghi to the smelter at Pam for use as a flux, had covered everything with a camouflaging red dust that suggested a new coat of paint, and neutralized the effect in one's mind imprinted by the activity of one's nostrils.

Humanity on *La France* certainly had racial variety. With English owners, an Italian captain and a French mate, the crew consisted of Tonkinese, Chinese, Japanese, Malays, Javanese, Indians, Arabs, local Kanakas, and natives of nearly all the other South Sea Islands! The Japanese cook, like others of his profession the world over, was a personage on board, one whose favour it was desirable to cultivate and maintain. Soon after we left Pam he appeared on the little deck at the bow of the ship, where we had taken refuge with two Australian prospectors who were our fellow-passengers. He was carrying the gory carcass of a kid whose fervent bleating had been heard above the other multifarious noises of the ship an hour or so before. This he hung in the open air to keep fresh, while the odour of the remainder of the animal, savoured with garlic and condiments, drifted upwards as it was being prepared for the *déjeuner*. During this meal, which was served on the open deck under an awning, the captain enlivened us with startling tales of convict life, and of the peculiar practices of the natives in the mountainous back country of the island. These, he said, were almost untamed, but sadly reduced in numbers since the French occupation. The air was stifling. Not a breeze stirred the sea. Strange creatures seemed mirrored on its oily surface. Even along the reef few waves were visible. Only the

swirl of the wash was heard round the coral shores of the islets we passed from time to time.

"The very deep did rot: O Christ!
That ever this should be!
Yea, slimy things did crawl with legs
Upon the slimy sea."¹

Our course after rounding Ile Paâba was straight south-east within the reef to Koumac. Skirting close to the shore we passed many islands, bare or scantily timbered; crossed numerous bays bordered by yellow sand and rimmed with "the slender coco's drooping crown of plumes",² had fleeting glimpses of lonely native villages and their semi-barbarous inhabitants. Ever in the background appeared the rounded crests, the long ridges, the smooth spurs of the mountains—here tussock-clad, treeless and sombre, there spotted with patches of grey-green forest, or plastered vividly with splashes of bright ochre, deep red and dark purple, where the oxidized rocks showed on steep hillsides.

Between Paagoumène and Koumac, *La France* hit a submerged coral reef. The incident was more disquieting to the passengers than to the captain, familiar as he was with the topographical peculiarities of the bottom of the lagoon. Despite the apparent ease with which the vessel overcame the obstacle and continued its way, we feared the consequences of the grounding might be felt if we were so unfortunate as to strike bad weather.

Leaving Koumac we steamed for the open sea. Though still smooth, the surface heaved strangely in great sweeping swells. A faint misty wisp visible against the hazy western horizon of a brassy sky with startling rapidity grew into a portentous mass

¹ "The Ancient Mariner", by Samuel Taylor Coleridge.

² "Enoch Arden", by Alfred Tennyson.

of heaping clouds, dark purply grey, changing to dirty green with streaks of bilious orange and yellow.

There was no doubt what these horrible colours foretold. The storm was upon us. It flung the sea into a fury of waves. The little ship plunged and rose, dived and tumbled, tossed and groaned. The first mad onslaught of the typhoon staggered us, and every minute of the next few hours we thought would be our last. Not daring to risk the horror below, Morgan and I tied ourselves to a windlass to prevent being washed overboard, while mountainous waves swept the deck, soaking us to the skin. Above the shrieking of the wind could be heard the voice of the captain, hard pressed at the wheel, shouting his orders. The mate, despite the turmoil and the impossibility of keeping on his feet, seemed to be everywhere on the ship at the same time, maintaining a discipline scarcely to be expected from so motley a crew. At sunset a fiery ball hung for a moment among the vast banks of variegated clouds, and in the streak of brilliance which it cast across the water-swept deck a Malay seaman spread his mat and said his prayers to Allah. His face was alight with a faith which transcended the dangers of the tempest.

That night brought many disasters to ships, not only on the coast of New Caledonia but along the shores of other islands, great and small, in the south seas. By morning the wind had considerably subsided, but the weather remained sullen and ominous. In the comparative calm I was induced, by a desire to change my clothes, to go below deck to the captain's cabin, ignorant of the fact that it was situated immediately above the screw and banked by stenches innumerable and indescribable. An hour or two of unforgettable agony followed, which was not relieved

even when a passage through the reef was effected and we were on the quiet waters of the lagoon. Once our safety was assured, the captain and the mate came below to unite in drinking my health in absinthe, and to remain smoking countless black cigarettes and talking over the horrors we had so lately endured. It was with deep relief that we quitted *La France* on reaching Nouméa, as darkness closed over the land.

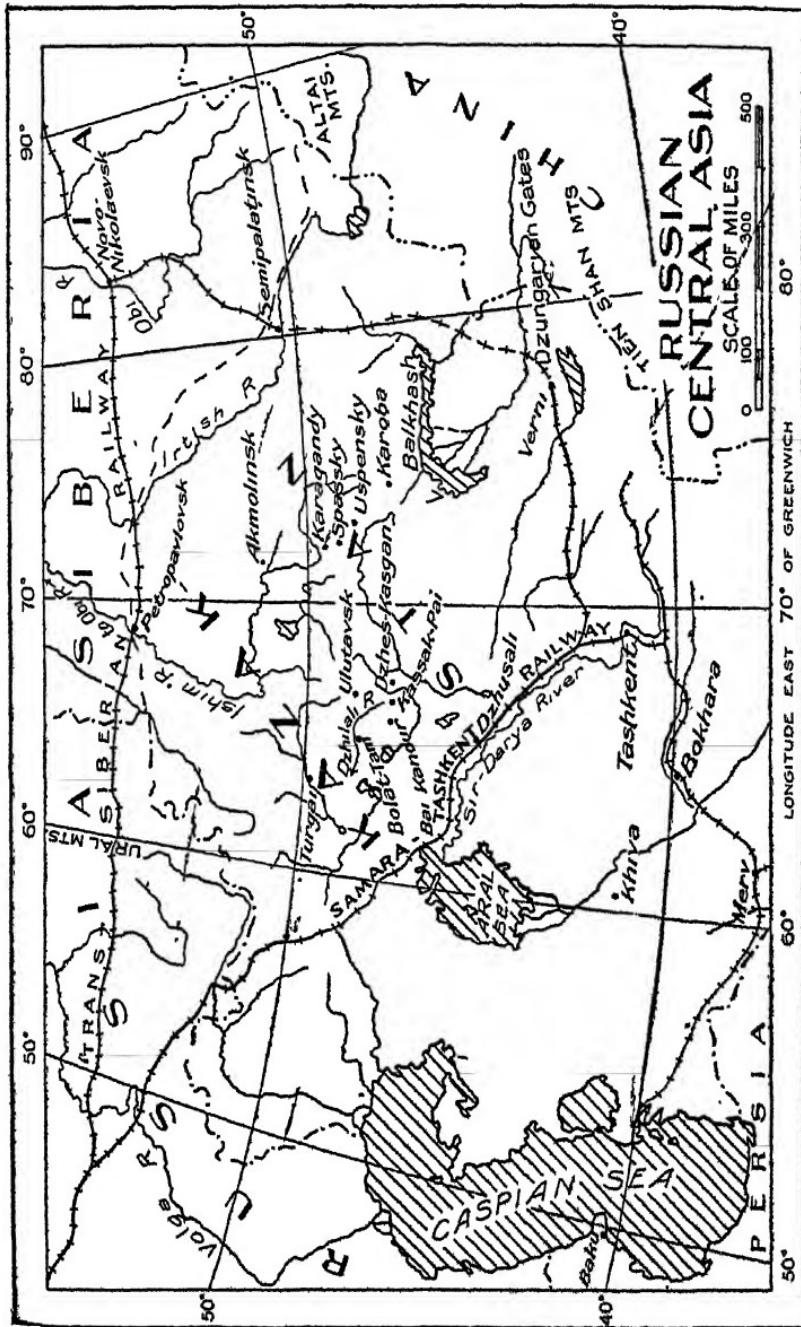
A day or two later I waved farewell to New Caledonia, as its mountains faded against the evening sky. The island has been justly called the "pearl of the Pacific" for its balmy climate and the beauty of its landscape. Captain Cook described it well when he said, "The whole might afford a picture for romance."¹ When her problems elsewhere are less pressing, may we not hope that France will awake to a fuller realization of the possibilities which the rich island presents in the varied mineral wealth of its mountains, and in the productivity of the soil of its lowlands?

¹ *A Voyage Towards the South Pole and Round the World*, Vol. II, by James Cook, London, 1777.

RUSSIAN CENTRAL ASIA

SCALE OF MILES
0 100 200 300 400 500

LONGITUDE EAST 70° OF GREENWICH



CHAPTER IV

THE KIRGHIZ STEPPES

I love all waste
And solitary places; where we taste
The pleasure of believing what we see
Is boundless, as we wish our souls to be.
Shelley

THERE is a fascination about long-trodden paths—the Indians' trail from lake to lake worn by centuries of moccasined feet, the flagged tracks in Iberian mountains polished by countless donkeys' tread, the roads followed by camel trains from time immemorial across treeless steppes. The memory of those routes of days gone by stays with the traveller, after he has left them.

From Kazan in Russia, long the stronghold of the Tatars, a highway of long ago leads across the Urals into Siberia, and onward through Turkestan into China. From it branch other roads, one running through the high Pamir into India, and another through Persia into Mesopotamia, by devious ways reaching out to Mecca and other old towns of Arabia Felix and Arabia Deserta. As the traveller rides along these ancient thoroughfares, now in places abandoned, elsewhere still used, his thoughts turn to mighty conquerors—Cyrus the Persian and Alexander the Great, Jenghis Khan and Tamerlane—to the great explorer, Marco Polo. Over those vast open spaces of Asia came the warriors of Persia and Macedonia, the riders of the Golden Horde, the emissaries of Cathay with whom the Venetian journeyed.

In that part of Central Asia generally called the Kirghiz Steppes I spent two seasons before the war, when Russia was still the great Empire that stretched from the Baltic to the Pacific, from the Indian Ocean almost to the Arctic. There I encountered the long caravans of camels toiling from Asia into Europe, from Europe into Asia, as they have since the dawn of history. There I met the nomads who over wide stretches are the sole inhabitants. Like Abraham of old they wandered with their herds of cattle, sheep and goats, in search of pasturage. But the region bears the imprint of more illustrious inhabitants. There are great open pits at ancient copper mines worked centuries ago, no one knows by whom; great piles of rounded stones erected to commemorate events of which all memory has vanished; mosques and shrines indicating the spread of Moslem culture, the last to precede the Russian conquest.

Before the war two great lines of railway provided access to Russian Central Asia. They crossed the Urals about five hundred miles apart, and drew farther away one from the other as they passed eastward. One, the Trans-Siberian Railway, the main route from Moscow to the Far East, was used by many non-Russian travellers; the other, the Samara-Tashkent Railway, ~~or~~ [the Turk-Sib], with branches leading to the borders of Persia, Afghanistan and China, by fewer. It was a strategic railway, and special permission from the authorities was required to travel by it. In recent years a third great railway has been in course of construction, connecting the two older lines. This railway, too, in a sense, is strategic, but economic and political rather than military. The far south-eastern part of Russian Central Asia, or Turkestan as the maps used to have it, contains one of the important cotton belts of the

Soviet. In the well-watered valleys among the mountains farther north is a fruit-producing region. The western and central parts of Siberia are grain-growing sections. When the peasants seized the land after the revolution and before the Bolshevik power had become a constructive force, they thought only of raising what they required to supply their own needs. The inhabitants of the south were more concerned in producing food and raiment for themselves, than in growing additional cotton for distant fellow countrymen. As a result the cotton industry languished. Plans for the construction of the new railway had been laid under the old régime, and a start had actually been made at both the northern and southern ends. When order began to emerge from the chaos of the early days of the revolution, the building of the connecting link was enabled to proceed. National resources are being co-ordinated, a more self-contained economic~~al~~ structure is being developed, penetration eastward into China is under way.

Most western travellers are disappointed in the Ural Mountains; they find none of the imposing landscapes they expect and in places a scarcely perceptible rise, in passing from Europe into Asia. But there is much charm in the simple scenery of the wooded slopes of a chain which, though persistent, is merely a broad belt of hilly tracts¹ of an altitude of 2,000 to 4,000 feet. Much more imposing are the elevations towards the eastern frontier of Russian Central Asia. Here, between the lofty chains of the Tien Shan and the Altai, are imbricating ranges which extend ~~eastward~~ from the great Asiatic plateau. Among them are the Dzungarian "gates"

¹ *The Orography of Asia*, by Prince P. Kropotkin, *Geographical Journal*, Vol. XXIII, 1904, p. 343.

now as throughout the ages opening a natural passage way from the Kirghiz Steppes to the deserts of inner Asia. In the great region between the ranges on the east and the Urals on the west, are three great natural features: the southern plains of the Aral depression, the central highlands of the Aral-Obi watershed, and the northern plains of south-western Siberia.

Not long ago, speaking geologically, the Caspian and Aral Seas formed part of a much larger body of water occupying what is now the southern plains. Though extensive swamps adjoin the Sir-Darya River, most of the surface of the plains is desert, but towards the east as the mountains are approached conditions become less arid. To the north of the Sir-Darya in the early spring are numerous lakes and even flowing streams. Later in the year most of the lakes become brackish marshes or salt pans, and the streams either sink into the desert sand or become merely series of disconnected ponds. The area is one of interior drainage. Though the southern plains are flat and featureless over wide stretches, in many places they are undulating, and elsewhere their monotony is relieved by mesa-like hills and by low escarpments.

The central highlands form a belt of country with ridges and groups of hills spreading almost continuously from east to west. To the east they increase in height, and merge in the ranges extending outward from the great plateau; to the west they are separated by a depression, which has been called the Straits of Turgai, from the base of the Urals. The highlands are composed of Permocarboniferous or more ancient rocks, the overlapping plains to north and south of Cretaceous, Tertiary, and recent strata. The boundary between highlands

and plains is highly irregular. Far out on the plains are outlying hills of the older rocks, and within the highlands are basins of flat-lying country which physiographically and geologically considered, may be connected with the plains. The streams of the highlands are intermittent—vigorous in spring, scarcely existent in summer.

The northern plains slope gently northward from the central highlands to the lowlands of western Siberia, and also ~~westward~~ from the mountainous region which fringes the great plateau. They are a southerly embayment of the flat-lying land which occupies most of north-western Asia. Their surface is covered with countless shallow lakes and marshes, regarded as the remnants of the great expanse of water which in recent geological times extended over this part of the continent. They are drained by tributaries of one of the great rivers of the earth—the Obi.

Situated as the Kirghiz Steppes are, in the midst of the greatest land mass of the globe, the climate is everywhere essentially continental. Naturally, over the ten degrees of latitude which the region covers there are variations in meteorological conditions. The annual and even the diurnal range in temperature is probably as high as in any part of the world. In the north the winters are long and cold, the summers short and hot. Southward the winters shorten, and the summers lengthen, although even on the desert near the Samara-Tashkent Railway there are brief periods of intense cold in winter in contrast to the blasting heat of summer. Close to the Trans-Siberian Railway the precipitation of more than twelve inches annually is generally adequate for agricultural purposes. In the valleys among the eastern ranges the summer rains are insufficient to provide the crops

with moisture; they require irrigation in addition. Southward from the Trans-Siberian and westward from the ranges the precipitation diminishes. On most of the southern plains desert conditions prevail, and over a large part of them the yearly precipitation is less than four inches.

Occasionally, torrential downpours of rain occur locally on the central highlands and even farther south. Late in May, 1912, while I was riding with a Cossack companion and a Kirghiz guide towards the old military outpost of Ulutavsk, situated at the foot of high granite ridges, we were suddenly overtaken by a thunderstorm of furious proportions. Lightning played around us, thunder roared and reverberated unceasingly among the rocks, rain fell in such quantities that the hillsides ran with sheets of water. The narrow gutters five or six feet in depth, furrowing the flats among the hills, filled and overflowed, turning the smaller and more confined hollows into ponds. Travelling during the height of the storm was precarious. We were in danger of being plunged into some deep hole, from which exit would have been difficult. Our horses were terrified but less so than our Kirghiz guide, who declared that never before in his experience had so great a deluge visited the Steppes. We took refuge in a disused habitation among the rocks, which was ill-prepared to give shelter during so unusual an atmospheric disturbance. The storm was over in half an hour, the angry waters soon began to subside, and we were able to proceed.

The most trying feature of the climate of the Kirghiz Steppes is the wind. It blows almost unceasingly. It rages from the mountains over the lower country in the *burans* of winter, in the dust storms of summer. No man or beast dares risk long

exposure to the freezing blizzards, or to face the blinding clouds of swirling sand, which make the desert day like night and deceive the unfortunate traveller in even a familiar environment.

Near the Trans-Siberian Railway the rich black earth produces good crops of wheat, rye, barley and millet. Farther south the soil becomes poorer, but in many places in the central highlands and even on the northern borders of the southern plains, it is enriched by a coating of loess. On this wind-blown material, wherever in sheltered valleys or flats there is sufficient moisture from the melting of the winter snow or from the spring rains, an abundant growth of grass and other herbage provides good pasture for the Kirghiz flocks.

The open prairies around Omsk and Petropavlovsk on the Trans-Siberian Railway, with their groves of poplar and birch, are a pleasing contrast to the dismal *taiga*, as the coniferous forest of northern Asia is called. Southward the trees become fewer; they are found only in a few favoured hilly sections. On the southern plains low willows and *bairlish* are the tallest shrubs, except where irrigation is practised and trees have been planted.

The Kirghiz are of Turko-Mongol stock, their language is essentially Turkish, their religion is Mohammedan. Few of them live permanently in the ancient cities around the edge of the southern plains, or in the newer towns along the Samara-Tashkent Railway, but they are racially closely related to the Sarts, Uzbegs and other aboriginal peoples who dwell there, or who have taken to farming in the valley of the Sir-Darya and elsewhere. The lack of common impulse among these kindred groups, the absence of co-ordinated racial expression, and the somewhat feeble nature of their Mohammedan zeal, probably

restrained their sympathies and limited their interest in the Pan-Turanian development of the closing period of the Great War. But that movement may have stimulated their aspirations and led to the increasing co-operation, now in evidence, to ensure political and material advantages under the Bolshevik régime.

During the summer the Kirghiz roam with their flocks over the pasture lands far to the north. With the approach of winter most of them migrate southward to the Aral Sea, to the valley of the Sir-Darya, and even farther south and east. A few remain on the central highlands, sheltering from the cold in their *zimovkas*, as the Russians call their rude protections of stone flags and sods. Their habitual dwelling, however, not only in summer but in winter also, is the mushroom-shaped *yurta* made of thick camel's-hair cloth, tightly stretched round a framework of sticks. They do their cooking and keep themselves warm by fires of dried dung, known as *kiziak*. As in the Indian wigwam the fire is in the middle, and the smoke escapes through the roof. The surrounding ground and often the walls are covered with gaily coloured rugs. Some of the Kirghiz for a time desert the pastoral life, to work in mines in the eastern part of the Steppes. There they become accustomed to eating cereal foods, rather than the animal products which are their customary diet.

The penetration of Siberia by the ~~Russians~~ began with the picturesque exploits of the robber chieftain Yermak, towards the end of the sixteenth century. During the next hundred years their progress eastward to the Pacific continued, but resistance from the Chinese impeded advance, and it was not till the middle of the nineteenth century that sovereignty over the valley of the Amur was recognized. On the

Steppes the Kirghiz no less vigorously repelled encroachment. While in 1734 their chiefs agreed to recognize the suzerainty of the Tsaritsa, more than a hundred years were to elapse before successive victories permitted the Russians to occupy the vast stretches of Central Asia which remain tribute to the Soviet. A few colonies of Cossack peasants and of religious refugees established themselves on the northern part of the Steppes, in the train of exploration and conquest, but active settlement of the region did not begin till after the completion of the western portion of the Trans-Siberian Railway in 1894. Large towns, predominatingly Russian, have since grown up along the railway, and farming communities dot the Steppes, becoming less frequent southward towards the central highlands. There are appreciable centres of Russian life among the mountains to the south-east, and an increasing admixture of a Slavic element in the southern towns. This relatively small minority guides the Turanian majority to political adjustment with the dictates of the central government at Moscow. The Autonomous Socialist Soviet Republic of Kazakstan has been created, and includes the greater part of the Kirghiz Steppes and of what has been known as Russian Central Asia. Its territory extends westward to the Caspian and even northward of the Trans-Siberian, to include Petropavlovsk.

In considering the Russian penetration of Central Asia, one cannot ignore the influence of criminal and political prisoners sent there in large numbers under the old régime. Some of the political exiles whose restrictions were relatively mild were responsible for much constructive effort prior to the revolution; others have influenced the trend of events in recent years. On one of my visits to the Steppes I recall being

awakened from sleep in the heavily barred house of a minor official on the Samara-Tashkent Railway, by the intermittent clang of a vibrant rattle. A watchman was operating it, I was told, to warn the convicts that he was on the alert and they need not attempt a robbery. In those days there wandered along certain sections of the railway a few of an unhappy class of political outcasts. They had to move constantly. They were prevented by the terms of their punishment, so I was informed, from sleeping twice in the same place. Those who survived hunger and thirst did so by begging or stealing what they could, as they wandered from place to place. Some of these erstwhile convicts are again in Kazakstan, but they rule. They are no longer pariahs.

During my first sojourn on the Kirghiz Steppes in 1911, I made my headquarters with my friend, H. C. Woolmer, at the copper smelting town of Spassky, situated about 400 miles south-south-east of Petropavlovsk, in what was then the government of Akmolinsk. The most important part of my work that year was the investigation of the rich deposits of Uspensky, sixty-five miles farther south, from which the copper ore for the smelter at Spassky was derived. The inspiration for the study came not only from Woolmer but also from another friend, E. T. McCarthy. To the zeal of Woolmer, general manager of Spassky Copper Mines, to the vision of Nelson Fell, his predecessor, and to the wisdom and good judgment of McCarthy, the consulting engineer, was due the successful development of an enterprise extraordinarily hindered by methods of transportation and by general working conditions. The ore from Uspensky was brought in carts drawn by camels or oxen to Spassky, where it was turned into

copper ingots for transportation by the same primitive means to the Trans-Siberian. Labour, drawn chiefly from the Kirghiz, was always a disturbing factor. At the beginning of operations no skilled workmen were available. It required infinite patience to train and discipline the nomads to regular hours and sedentary effort. Before the long caravan route from Petropavlovsk through Akmolinsk had been satisfactorily established, food and other supplies were at times inadequate. The company for a while was hampered by insufficient funds, the pay of the miners was delayed, and protracted strikes occurred. By the time I reached Spassky, however, these and many other difficulties had been overcome, and my investigations at Uspensky were a pleasant and interesting task. I had the opportunity, too, of making an expedition far south over the Steppes in the direction of Lake Balkhash, to examine mineral occurrences which the Kirghiz had brought to Woolmer's notice, and later of studying small deposits of copper minerals near Spassky and coal seams at Karagandy, twenty-five miles north of Spassky and connected with it by rail.

My inward journey from Petropavlovsk to Spassky was made in a seatless covered vehicle locally known as a *korobok*—if drawn by two horses it was a *para* or by three, a *troika*. In this conveyance my travelling companion and I ate most of our meals, and slept all of the six nights but one. Our rate of speed from time to time was affected by the condition of the weather, the state of the roads, and the temper of the proprietors at the post-houses in the villages where we changed horses. Anyone who knows the Steppes must remember how exasperating the peasants could be in wrangling over the prices to be charged for horses, and in placing obstacles in the

way of the traveller in their grasp to delay progress.

The villages along the route were all much alike. They were regularly laid out, with very broad streets disposed at right angles, but without well-defined roadways. Many of the houses were neatly built of well-hewn logs, with windows and doorways ornamented with fretwork facings. Others were mere hovels of sun-baked bricks, roofed with straw and sod. In the larger communities the gilded or gaily painted turrets of the Orthodox church gave architectural contrast to the low surrounding buildings.

When nearing a village the driver, who changed with the horses, whipped up the jaded animals, and dashed at great speed amid clouds of dust between the rows of houses, to the tune of barking dogs, quacking geese, and shouting children. It was always a nerve-wracking operation. Every minute we expected to be overturned, and breathed freely only when safely within the high fence enclosing the post-house. Soon a steaming samovar was set before us, and while we ate our meal the inevitable bargaining began. When arrangements were completed and we were ready with fresh horses to renew the journey, the excitements which had accompanied our arrival were repeated. The *troika* burst from the yard. A mad race followed for a mile or more till the village was left behind. Then the animals slowed to a walk, and thus they continued, hour after hour, across the dreary plain, till the distant buildings of the next village hove in sight.

The Russian habitations on the Steppes were rarely isolated, they were almost entirely confined to villages. Each family tilled the land allotted to it in the surrounding country, by the efforts of its own circle, or else a number of families joined forces and worked together. Except occasionally at busy sea-

sons, all returned at night to enjoy the life of the commune, and during the long winter when the cattle were stabled near their houses they rarely emerged from its familiar protection. It was harvest time when we were passing south, and often we met peasants on their way to and from the fields. One night as we were sleeping in our *korobok* in the yard of a post-house, I was aroused by the part-singing of a group returning from their work. The voices of young and old blended sweetly, the music grew louder and passed the place where I lay. Gradually it became fainter, until it faded completely into the distance of the clear silent night.

As we approached Akmolinsk we thought we were about to enter a considerable city. The arms of numerous windmills, the domes and minarets of churches and mosques among far-scattered buildings towered above the level stretches of the treeless steppe. Once within the town we were disillusioned, for Akmolinsk differed from the numerous villages through which we had passed only in its greater size. It was, however, an important centre, and many traffic routes converged there. We saw fair-skinned immigrants from old Russia on their way to settle on the surrounding plains, black-eyed Orientals with caravans of camels laden with the produce of China and Turkestan travelling towards Europe, swarthy Kirghiz moving slowly with their herds from the fattening pastures of the north.

A Kirghiz meeting-place known as Karoba, seventy-five miles south of Uspensky and about the same distance north of Lake Balkhash, was my camping ground for a week while I examined prospects in its vicinity. My companions were a young New Zealander (Harry Farmer), a Cossack interpreter, and several natives. To reach Karoba from

Uspensky we journeyed along the ancient highway leading from Kazan to China. It was late September and already the Kirghiz were journeying southward over its time-worn surface, as had their fathers. Their great flocks, their horses on which all but the smallest children rode, their camels piled high with household goods, wound in long lines among low hills and across broad valleys.

About halfway between Uspensky and Karoba we entered a locality of greater topographical variety. Though naturally the long-used road had followed the lower country, a short distance to the west of our route the Ortau mountains rose several thousands of feet above the general level. The Kirghiz whom we met gave us varying accounts of their nature. Some said that their higher summits could be reached only with the aid of ropes, and that it was wise not to attempt the ascent because these upper levels were the haunt of ferocious wild beasts. Others were more reassuring. They told us the mountains could be climbed by devious routes, and on the top would be found a wonderful spring where the sick, either man or beast, might be healed, and a woman with child helped in her labour if she but drank of the crystal water. From our slowly-moving vehicle we had a good view of the steep gloomy scree-bordered slopes, and of the curious crest line, here flat, there jagged and fantastic. At one point a lofty pinnacle towered like an imposing natural monument, at another the backbone was pierced by a great hole through which gleamed the bright western sky.

Towards evening we found ourselves in the midst of a nomad settlement. The late September sun was setting, bathing in roseate glory the *yurtas* and the flocks browsing peacefully in fertile pastures. A

curious crowd surrounded us, anxious to see the man who had come from distant parts (so they had heard from our driver) to visit their country. Those who were farthest away ran towards us in their anxiety to take part in the entertainment. Two men dragged between them a gaily dressed girl. Despite their bulky garments their pace was so rapid that her feet left the ground. I was reminded of the picture of the Red Queen and Alice and laughed, thus exposing some of my gold-filled teeth. Our visitors were spell-bound. What sort of man was this, and where had he come from that he had teeth of gold? Had Allah put them there? I answered truthfully in the affirmative, but they were not content with my explanation. They climbed into and over the *korobok*, prying open my mouth and peering into it with their strange Oriental eyes. Happily at this juncture the sun set, bringing the hour of evening devotion, "for prayer is commanded the faithful and appointed to be said at the stated times".¹ For a few minutes, above the lowing of the cattle and the plaintive cries of the camels could be heard the murmur of many voices in supplication. Our driver followed the example of his tribesmen, spreading his praying-mat by the roadside. His ardent worship ended by lowering his body three times in the direction of Mecca. Immediately afterwards he demanded food. It was a season of fasting, when nothing could be eaten while the sun was above the horizon. With difficulty we persuaded him to wait to satisfy his hunger at Karoba, which we reached about half an hour later.

Among the many Kirghiz who visited at Karoba was a poor creature, possessed of an extraordinary nervous affliction which made him involuntarily shout or jump when anyone near him did either. It

¹ *Al Koran*, Chap. IV.

diverted our party to hear him repeat a Red Indian war-whoop or see him execute a Maori dance. He told us he was called "the fool", but he was far from being so. He had been a good worker in the mine at Uspensky, and showed himself more capable and solicitous for our welfare, on the several rides he made with us, than most of our other followers.

The surrounding country was full of interest. Here and there we found small groves of birch and poplar growing in deep sheltered valleys among the rocks, where the autumn mists hanging long in the cold mornings made the trees look like a great golden forest. In one locality we found a curious aggregation of low granite hills, with a spring of clear water in their midst. Scanned from an aeroplane they would, I fancy, have resembled a group of giant mushrooms. Their sides were steep and in places overhung. Their summits, smoothed and rounded by wind-blown sand, were generally inaccessible. Some of the intervening ravines protected clumps of juniper and willow.

A few of the Kirghiz spend the winter around Karoba. We saw cemeteries for simpler folk, and mausoleums of yellow sunbaked brick for the remains of chieftains. Still more interesting were the mounds of stones to commemorate the forgotten dead, and the collapsed mine workings where a vanished people operated.

The local ponies did not provide comfortable riding, and such animals as the inhabitants possessed were not always at our disposal. On one occasion the guide who accompanied me rode a horse and his son a steer, which with constant prodding made as good speed over the uneven ground. To me was allotted the most stately animal, a racing camel. Its manners were perfect, and it knelt with singular

docility at a given signal when I wished to mount or dismount.

One day we halted for our mid-day meal at a point where a narrow valley debouched from the hills. Across a broad plain and only a mile or so away stretched one of the old roads I have described. Along it, in the brilliant sunlight which flooded the bare flats, a caravan of camels heavily laden approached. At its head rode a lady on horseback, and by her side a boy similarly mounted. Seeing the smoke of our fire rising blue against the background of hills, the two separated themselves from the train, which continued its way towards the north. As the lady and boy drew near we recognized by the bearing of their horses, and the splendour of their harness, that these were people of circumstance. If there had been doubt in our minds on this score we were not left long in ignorance. The lady, with veil uplifted and trousers torn by rough travelling, alighted and with directness and dispatch began a harangue which would have done credit to a politician. She was no ordinary Kirghiz, she explained, but the wife of a great chief, then absent on a pilgrimage to Mecca. Hers were now his flocks and herds, hers was the privilege of going where she chose in his absence. But as he might never return she would not be averse to accepting some money from us as a token of our goodwill. While the mother was talking in Kirghiz and the Cossack was interpreting in Russian what she said, the boy remained silently fingering my instruments, toying with my geological pick. Then suddenly he began to count slowly in English from one to ten. He had learned so much of the language from a passing mining engineer, and beamed with joy at displaying the unsuspected knowledge. The lady, having satisfied her curiosity, got on her horse

and scampered furiously away to rejoin the caravan, while the boy lingered for an hour or two to accompany us to a prospect we were about to visit. The minerals we might find interested him more than filial duties.

The outward journey from Spassky to the railway was less pleasant than our trip inward. It was early winter; there had not been enough frost to cover securely with ice the few streams we had to cross, or sufficient snow to provide easy travelling in the long low sled in which I lay. Nowhere was the post-road well formed, and for long distances no piles of stone or sod marked the meandering trail. It was small wonder that on one occasion the horses went through the ice and we and our equipment had a narrow escape, and that at other times we lost our way in the *burans* which raged for days at a time, blinding the horses and ourselves with a mixture of dust and fine hard snow.

One night my Kirghiz driver wakened me from sleep, to inform me that he had no idea where we were and that we must look about for shelter from a more and more threatening storm. I stayed with the horses, calling from time to time to indicate my whereabouts, while the Kirghiz searched. He was not long away and returning bewildered, as I thought, asked me if I had heard wolves. I listened and detected a faint howling above the wind. The sound grew louder and more distinct, and with it mingled the more familiar barking. Not wolves but dogs were near us. We went towards them, and to our joy found we had stumbled into one of those rare habitations on the Steppes, an isolated Russian peasant's dwelling. In this tiny hovel, amid sheep and fowl, and among people of both sexes and of ages ranging from infancy to senility, I passed a warm if

somewhat uncomfortable night on the top of a long oven extending from the only chimney. Once or twice I woke to see in the light of the candles burning before the ikons, the sleeping family around me, and to thank Providence that the larger animals reposed outside in a sod enclosure abutting on the congested homestead.

On another night, as we neared Petropavlovsk, where I hoped to catch the weekly train westward, to be in England in time for Christmas, I arrived at a post-house after the Kirghiz landlord had retired to bed. A Russian boy who was in charge told me his master had given instructions that he should not be wakened till midnight, when a military picket with mail from the south was due. After much cajoling I induced the boy to disobey orders; but in a minute or two, running and crying, he was back to tell me that the landlord was in so great a fury at being roused that he would not let me have horses till morning, and if he were again disturbed not at all. As best I could I whiled away the time till midnight teaching the Russian some words of English. With the mail came, happily for me, a Cossack officer who, cold and hungry, accepted gladly the refreshment I offered him. When he had taken a second glass of vodka, I told him of my predicament. If horses were not available at once I would miss my train next night. His sympathy excited, he sent the boy to fetch his master. When the Kirghiz appeared my new friend, with little verbal prelude, belaboured the now servile and trembling wretch with a whip which he drew from the capacious folds of his long fur coat. How had he dared to treat a stranger so disgracefully? Horses must be immediately placed at my disposal. If he delayed he would have a more vigorous trouncing. Soon, beneath the stars of one

of the few clear nights of my northbound journey, I was speeding across the snow towards the railway.

By early April of the following year I was once more on the Steppes. On this occasion, as my explorations were to be some hundreds of miles to the south-west of those made in 1911, I entered the region from Dzhusali on the Samara-Tashkent Railway. Well do I remember the large fortress-like railway station, its comfortable restaurant, its pleasant garden and tall poplars. No less the Easter festivities which, long drawn out and lavish, we enjoyed in the house of an official of the railway, before we set out on our journey northward over the desert.

My investigations centred about the coal mines at Baikanour, about 225 miles north-east of Dzhusali, and round the larger settlement of Dzhes-Kasgan, 75 miles farther east. Kassak-Pai, midway between the two and subsequently chosen as the site of the smelting plant, was then merely a collection of Kirghiz *zimovkas*. The copper deposits at Dzhes-Kasgan had been examined a year or two before by the able American geologist, Sydney Ball. My job was to consider the fuel situation, to search for suitable materials to be used in fluxing the copper ore, and to study the uncertain water supply and other problems. All of this work entailed much travelling by various means of locomotion over the steppe—on foot, with slow-moving camels, on agile Tatar ponies, occasionally by motor-car. My constant companions that season were a young Canadian engineer, G. G. Gibbins, and my old friend of New Caledonian days, R. J. Morgan. Most of the time a hardy Cossack, Ivan Ivanovitch Ponomaroff, was with us. His knowledge of the region and his unfailing resourcefulness proved of inestimable value in our many wanderings. His brother Alexander accompanied us

now and then, and various Kirghiz workmen were engaged from time to time for special jobs.

At Dzhusali, Gibbins and I were joined by an English friend and a Lettish mechanic and his genial wife, and in their cheery company we journeyed to Baikanour. In this part of the Steppes there was no regular post-road, nor any villages where horses could be obtained. We travelled with camels, getting relays or additional animals from the Kirghiz among whom we passed. The line of camels, about thirty in all, made an imposing cavalcade as it slowly twisted over the long undulations of the desert.

Our progress at any season of the year with so primitive a means of transport would have been slow. It was especially tedious in April. The light winter snow had just melted, leaving wide stretches of mud around the brackish lakes and marshes, filling the streams and making them difficult to ford. Once or twice we came to sloughs which we could not circumvent, and had no recourse but to plunge boldly into them. Long delays ensued, but eventually amid wild shrieks from our Kirghiz and Cossack drivers, the camels with grunts and groans managed to pull our heavy clumsy wagons from the gumbo in which they had been stuck. The antics of the camels were indeed a continual source of entertainment. The way they chewed, the grimaces they made, the weird cries they emitted, the placid gait they immediately assumed after difficulties were over, were new and strange to me. Not so diverting did I find them when, annoyed, they vented their rage by spewing forth a mass of slimy cud.

The desert was infested with brigands, and each night we had guards to protect our baggage and be responsible for our personal safety. One night we

were wakened from our sleep by furious firing, but our fears were soon relieved by the news that the molesters of our peace had fled. When morning came, however, one of my bags was missing. It contained only a lot of light wearing apparel, very old but precious. It was of the useful sort that could be discarded without prejudice to my Scottish thrift, after having fulfilled its function of being worn till soiled in that baking summer climate. I called the chief Kirghiz guard to me and, suspecting the possibility of collusion with the brigands, ordered him to find the bag. He would have it by evening, he said. But when we camped that night it was not forthcoming. This time I was less amiable. If the bag were not found I would complain to the Russian Governor of the remissness of his stewardship. Next night it was still missing. I raged in my annoyance. I threatened to expose him to the Emperor. Apart from the fact that my influence did not extend into such august quarters, he appeared so penitent for his delinquency, so anxious to make amends, that we compromised, and I accepted the fifty roubles which he said he had collected as a fine from the fellow-tribesmen of the thief he had failed to locate. With it I bought a Kirghiz rug which formed a comfortable sleeping-mat for the rest of the season, and is still in my possession. The incident would have been considered closed had there not appeared in our camp a few weeks later a seedy-looking individual attired in an old pair of cotton pyjamas, garments which were strangely familiar.

One evening later in the year we had another experience with natives of acquisitive proclivities. While working in the hills about twenty miles northwest of Dzhes-Kasgan, the *yurtas* in which we were living were surrounded by a fierce looking band, who

demanded a considerable sum for the use, so they naïvely said, of their pastures. While Gibbins and Ivan were expostulating with the headman, whose attitude had become menacing, Alexander had crept surreptitiously from the back of his *yurta*, and unknown to our unwelcome visitors was galloping for help across the steppe to Dzes-Kasgan. We gave the chief some money, and agreed to take down our *yurtas* and move elsewhere. Somewhat pacified by these concessions the band departed, announcing they would return at dawn to take more effective measures if necessary. During the night we packed up our equipment, and with the first streaks of day were on our way, pursued by our visitors of the night before. Happily the cloud of dust their horses made was not the only one on the horizon. In the direction of Dzes-Kasgan another had arisen, from which emerged a posse of Cossack cavalry guided by Alexander. Our pursuers became the pursued, and an encounter followed in which there were no serious casualties. The Cossack whip, however, was an effective and demoralizing weapon. The roubles were returned, contrition for inhospitable behaviour expressed, and a promise given that in future we should be unmolested.

Except for these two experiences our relations with the tent-dwellers were cordial. They often showed us places to camp where water might be found, and pasturage for our camels and horses. At times, indeed, they showed regret and even annoyance when we left them. On one occasion I was presented with a beautiful pup which, however, I was glad to return when I discovered it was a young wolf.

Wild animal life was fairly abundant on the Steppes. From time to time we saw foxes, which

the Kirghiz hunted with falcons, and bands of tiny deer. In places, too, game birds were common, including bustards. Here and there we saw large numbers of tortoises, and almost everywhere snakes of several species. We were told that these were venomous, but less so than the scorpions and tarantulas. At one of our camps in a remote spot a scorpion climbed up Alexander's leg, and stung him at several points below the knee. We cut open the wounds with a safety-razor blade, sucked them and applied potassium permanganate with a tooth-brush. The continuance of the cure required the patient to drink copious quantities of vodka. To this part of the treatment Alexander did not object, and later we took turns walking him up and down to prevent his going to sleep. Apparently to do so would have been fatal. His robust constitution survived both stings and remedies. I encountered only one tarantula. We had stopped to rest at the height of the mid-day heat close to a water-hole. Exhausted from riding, I flung myself down in the deep grass without making a preliminary examination. I felt something damp below me and found I had squashed one of these large insects. It did not look like one of the spider family, but its grey remains were so unpleasant that I accepted Ivan's verdict that I had had a narrow escape.

In April and May the weather was warm and, except when we had dust storms, pleasant; but as the season advanced it was so hot in the middle of the day that we found it best to work in the early morning or late afternoon, and sometimes even to travel at night. The steppe flowers were a constant joy. In April a small lily, the size and shape of adder's-tongue but of a different colour, made banks of pink in sheltered valleys. Here and there wild rhubarb

and asparagus gave a domestic touch reminding us of kitchen gardens at home. In May masses of tulips bloomed, turning brown slopes to sheets of yellow and scarlet. Later in the year a great variety of other flowers brightened the damper depressions.

The landscape of the southern plains was generally monotonous, but at times it could be pleasing and even beautiful. Often towards evening we reached a stopping place near water. The camels browsed on the coarse grass, or kneeled and rested from their labours. The Kirghiz retired to any rise which might be near to lift their voices to Allah. Soft shades of rose and lilac suffused the yellow sand. The desert lately dull and sun-baked was transformed.

One of the most interesting of our trips was that made to Bolat-Tam, situated sixty or seventy miles north of Baikanour. Here the Ters-Butak stream, a tributary of the Dzhlali River, flowing vigorously in the spring, has worn for itself a deep valley in a plateau which extends for many miles. Deep narrow gutters dissect the steep clay slopes; the ravines and intervening spurs are strangely sculptured. The locality has a savage beauty, heightened by the colours—red, purple, yellow, brown and blue—to which the clays weather.

On one blazing morning as we neared Bolat-Tam, Ivan and I were induced by a shimmering mass, north of our course, to leave the rest of our party to investigate its nature. As we approached, the picture cleared. A mosque of white stucco, with pink roof and minarets, stood on glistening sand. In front lay a pool of bright blue water, and a large patch of grass of vivid green. Behind rose low hills gleaming with selenite. The interior of the mosque, with white pillars supporting the curves of the

vaulted roof and no decoration save a few mats, was dignified, cool and reposeful. What attracted me most were the scintillating lights which flickered across the floor from the windows. The panes, we found on examination, were not of glass but of selenite, the mineral we had observed in the clay hills behind. "I wish I could find a large piece", I said to Ivan. We mounted our horses soon after this remark and in an hour or so had rejoined our companions at Bolat-Tam. When Ivan alighted I noticed his blouse seemed unusually bulky. "What have you got there?" I asked him. "The pane of that stuff you wanted," he said, to my chagrin. When we camped near the mosque of Esan a few days later we found that some Kirghiz had assembled in the interval to do honour to their dead. Shame still filled me. I did my best to make amends by kindly acts and words. I dared not mention the sacrilege.

On our return journey from Bolat-Tam our course led us south-easterly through the Kisheetau range. The path which took us through the hills was narrow and rugged, but gave our patient camels no concern. The view from the saddle was one of great beauty. Above towered dark pinnacles and ragged crags. Around was a flower-decked grassy upland, on which our camels and horses fed and the Kirghiz rested. Below, watered by clear springs, lay green valleys where flocks of sheep and goats grazed. Beyond stretched dun coloured plains. In the distance against the northern sky rose the blue outlines of the mountains of Ulutavsk. "And we placed stable mountains on the earth, lest it should move with them; and we made broad passages between them, for paths that they might be directed in their journeys":¹

¹ *Al Koran*, Chap. XXI.

The ancients, whoever they may have been, who worked the deposits of Dzhes-Kasgan, took only the oxidized copper ore, probably mainly malachite and azurite, and possibly also native copper. They removed large quantities, as great open pits hundreds of feet long and wide and in places nearly a hundred feet deep, testified. Old heaps of tailings showed where concentration of the ore had taken place, and fragments of slag indicated even that some smelting had been done. What the fuel could have been it is difficult to say. It was probably *bairlish*, which still grows thickly in the vicinity, and perhaps *kiziak*. The sulphide ore, bornite and chalcopyrite, lying below the oxidized outcrops, evidently proved too much of a metallurgical problem for the former workers, and it was this material, impregnating beds of Permian sandstone between layers of shales, that was being developed at several points at the time of my visit. The development had been successful, and a substantial tonnage of ore of good grade—ten per cent. and upward—was in evidence. During the war when the smelter at Kassak-Pai was in course of erection, large quantities of heavy machinery were transported from the Samara-Tashkent Railway by an ingenious method. Starting from the railway a line of track a mile or so in length was temporarily laid, and the material carried in cars along it to the end. Then the track behind was taken up and put in front, and so the operation was repeated along a carefully chosen route across the desert, till all of the equipment was assembled at the smelter site. From it well-built roads led to the coal mine to the west and the copper mine to the east.

On our return journey from Dzhes-Kasgan to Dzhusali late in the summer, our route followed a straighter course than that which we had taken by

way of Baikanour in the spring. We covered the distance in record time—only four days on the road. The feat, which meant travelling night and day, gave us ample reason to be impressed with the qualities of endurance of our camels. We had hoped to be able to obtain relays here and there but the steppe was almost deserted, and to the end of our journey we had to use the same animals except for a change at just one point where we substituted a number for those that had strayed away in the night or had been stolen. Day after day they dragged their heavy loads across the sweltering sand, with no food save the few bites of coarse grass they found near the holes of dirty brackish water, where at long intervals we stopped for rest. When we reached Dzhusali in good time for the bi-weekly train to Moscow that we had been hastening to catch, they still seemed fresh. However, they richly deserved the week of rest and feeding they were to have in the rich pastures along the Sir-Darya, before the trip back.

Central Asia, the physical character of the region, the picturesque life of the nomads, left with me an indelible impression. When I said good-bye to Ivan and Alexander and my other friends of the Steppes it was with the expectation of returning. Seldom, however, does life accept our exact plans. The Great War came, the Russian revolution followed, and I have never gone back. World-shaking challenges emanate from Moscow to-day. They reverberate across the Urals among the polyglot peoples of Asia. One can understand how the dictatorship of the proletariat has been imposed upon the docile peasants of old Russia. One finds it possible to appreciate how, under the influence of mass enthusiasm, the inspiration of a new gospel or persistent

pressure, the machinery of communism can be tolerated even by the townsfolk of Turkestan. But how, one wonders, will the tent dwellers, these wanderers over the open spaces, submit to the discipline and restraint of the new order? And has not the Koran promised "We will not load any soul but according to its ability."?¹

¹ *Al Koran*, Chap. VII.

CHAPTER V

ON AND OFF BEATEN PATHS IN JAMAICA

Venient annis
Sæcula seris, quibus Oceanus
Vincula rerum laxet, et ingens
Pateat tellus, Tiphysque novos
Detegat Orbis, nec sit terris
Ultima Thule.¹ Seneca

“I REACHED the Indian sea, where I discovered many islands without resistance in the name of our most illustrious monarch . . . All these islands are very beautiful, and distinguished by a diversity of scenery”.² When Columbus after his return from his first voyage thus wrote, “he was persuaded that he had arrived among the islands described by Marco Polo as lying opposite Cathay in the Chinese Sea”.³ He had not yet seen Jamaica, but the description he gives of the other islands would have fitted it equally well. On his second voyage he skirted its northern shores and landed at Puerto Bueno⁴ on May 4, 1494. He did not stay long, perhaps because he found “no gold in it or any other metal, although the island was otherwise a paradise and worth more than gold”.⁵

¹ Translated in Historians' *History of the World*, Vol. XXII, as follows: “There will come, after the years have lapsed, cycles wherein Ocean shall loosen the chains of things, and a vast land shall be revealed, and Tiphys shall explore new worlds; nor shall Thule remain ultimate on earth.”

² Letter to the noble lord Raphael Sanchez, treasurer of their most invincible majesties, Ferdinand and Isabella, king and queen of Spain, given by Washington Irving in *The Life and Voyages of Christopher Columbus*.

³ Washington Irving, *ibid.*

⁴ Probably Dry Harbour.

⁵ Quoted by Frank Cundall in *Historic Jamaica*.

Columbus can scarcely have regarded Jamaica as a "paradise" on his second and longer sojourn. Returning from the coast of America in the early summer of 1503, he beached his two leaky caravels on the shore of St. Ann's Bay, which for its beauty he had called Santa Gloria when he had seen it before. He could not relaunch his ships. The quarters erected on their decks were cramped. It became increasingly difficult to obtain food by bartering with the natives. They had not forgotten that on his brief earlier visit he had spread havoc and terror before him. Though he endeavoured to conciliate them, not all of his followers were so disposed. He suffered from gout, and many of his men were sick. Succour from Hispaniola was delayed by the enmity of a jealous governor. A mutiny broke out. A year of hardship and danger had passed before the resolute mariner was relieved.

Verdant and luxuriant in riotous tropical vegetation, Jamaica stretches for 144 miles from east to west, and from 22 to 49 miles from north to south. To the traveller skirting its shores the spread of meandering ridges, the wandering valleys, look like the folds and creases of some vast prehistoric monster, crouched in the broad expanse of the blue Caribbean. Less than one-sixth of its area of 4,450 square miles is low-lying land—patches here and there along the coast and larger stretches bordering some of the rivers. The remainder is hilly or mountainous, and more than half rises over one thousand feet above the sea.

From the Blue Mountains, which form the backbone of the eastern part of the island and at their highest point reach more than 7,000 feet, sharp-crested spurs descend to the north and south. The rocks of these mountains, though relatively youthful

in the geological scale, are metamorphic, and show the tectonic vicissitudes through which they have passed. A fringe of lower hills composed of later strata, chiefly limestones, intervenes between the Blue Mountains and the encircling sea. Similar rocks deposited in beds of unusual thickness form in the middle and western sections of the island a region of great irregularity, but of lesser altitude than the Blue Mountains. Once an extensive plateau, the surface has been so changed in the course of ages that its early character has largely disappeared. The traveller sees in places a Karst landscape, with deep depressions in a maze of jagged ridges, over greater areas a more mature topography of open valleys among hills of smoother and gentler slope.

Few enough of the names Columbus gave in the Greater Antilles, in the ardour of religion and loyalty, have been left unchanged, nor has his own name been over much commemorated. But for the island he called St. Jago it was a happy choice to have kept the still earlier Jamaica, "The Isle of Springs" in the aboriginal Arawak tongue. For it is a land where water of crystal clearness bubbles from the earth at countless places. Though in the eastern part of the island the rivers flow continually above ground, and are formed by the union of many tributaries dashing in cascades from clefts in the mountains, many in the limestone region of the middle and western sections are subterranean for portions of their courses. There on the north shore some emerge from their underground channels only a mile or so from the sea, into which they rush in tumultuous water-falls.

In a land even so small as Jamaica, with its differences in altitude there is naturally considerable variation between the lowland and mountain tem-

peratures. Generally speaking, the climate, bathed in the breezes of the Caribbean, is salubrious. Near the sea-shore it is often too hot to suit the northern visitor, but becomes increasingly pleasant to him as he rises to greater heights. On the loftier elevations of the Blue Mountains he may even welcome warm clothing in the daytime and heavy blankets at night, when cool wet winds blow from the mountain tops.

One gathers from the accounts of the early writers that Jamaica at the time of its discovery was thickly populated. The Arawaks, mild and unwar-like savages, were not left long to pursue their gentle ways. Under Spanish rule large numbers were transported to work in the gold mines of the mainland. Those who remained and survived the Inquisition were driven into slavery. Soon only memories of a vanished people lurked about their former haunts.

By the middle of the seventeenth century the islands of the Caribbean had become the resort of merchants and filibusters of many nations. There were rich opportunities for commerce, and an even more profitable field for buccaneering adventures against the galleons, laden with treasure, journeying across the Spanish Main. The distinction between the two activities was not always finely drawn.

"Then we sailed against the Spaniard with his hoards
of plate and gold,
Which he wrung with cruel tortures from Indian folks
of old;
Likewise the merchant captains, with hearts as hard
as stone,
Who flog men and keelhaul them and starve them to
the bone."¹

Wishing to establish the rights of Englishmen to trade with the colonies of Spain, Cromwell sent an expedition under Penn and Venables, in 1655, to

¹ "The Lay of the Last Buccaneer", by Charles Kingsley.

take Hispaniola. It failed in this object, but captured Jamaica. This was the first of Britain's many battles in West Indian seas. Here for a century and more her navy was to receive its training, and to pay "the price of admiralty". On that romantic stage were to appear Drake, Hawkins and Frobisher, Rodney and Nelson.

The English title to Jamaica was recognized by the treaty of Madrid in 1670. The pirates, whose nefarious activities centred at Port Royal, were avowedly suppressed. Strangely enough one of them, Morgan, after a career of adventure and bloodshed, was knighted by Charles the Second and made Lieutenant-Governor of the island. Perhaps the Merry Monarch thought it wise to set a thief to catch a thief. But Morgan in the exigency of a later government was to be sentenced to imprisonment at Spain's demand.

A devastating earthquake occurred in 1692, and Port Royal, the scene of revelry and corruption, of lavishness and depravity, of gaming and murder, slipped below the waves. For more than a hundred years its remains were visible beneath clear waters. Superstitious negro boatmen shuddered at phantom ships and heard church bells tolling at the bottom of the sea.

The numbers of the first British inhabitants of Jamaica were increased by a stream of political prisoners, of criminals transported for various offences, and of others who were either kidnapped or induced to emigrate by doubtful methods. The lot of those who became "indentured labourers" was little better than that of the negroes who were imported later, with great profit. From time to time other white settlers came of their own volition.

The eighteenth century and the first quarter of the nineteenth formed Jamaica's age of opulence. The sugar plantations, which increased in size and number as the population grew, were highly lucrative. Though the revenue varied with the price the staple commodity brought, there was a steady flow of wealth to British coffers. The island held an important place in British trade. It remained the "darling plantation" that Charles the Second called it. Prosperity increased despite an insurrection of the slaves, and more serious trouble from time to time with the Maroons, or in other words, the descendants of the negroes who had taken refuge in the interior after the collapse of the Spanish régime. The planters waxed rich, they built stately mansions, they dispensed princely hospitality. The hundreds of thousands of slaves who toiled on the estates made possible these ample days. Sometimes they were cruelly treated by the overseer of an absentee landlord, who "received with gladness the proceeds of the plantation, nor looked to see if his gold were stained with blood".¹ Sometimes the planter himself was not above reproach. The slave code, passed in 1696, gave the owner almost unlimited power. Records of the routine and discipline of the estates bring to light punishments and tortures which revolt, even when allowance is made for standards and manners of another age. But happily there were masters of a different type, who treated the blacks with justice and humanity, and even with an intimate kindness which was a bewilderment to righteous abolitionists. Here is a clause² in the will of John Blagrove, who died at his home in England in 1824:

¹ *A History of Jamaica*, by W. J. Gardner, page 177.

² Quoted by Frank Cundall in *Historic Jamaica*.

"And lastly, to my loving people, denominated and recognized by Law as, and being in fact my slaves in Jamaica, but more estimated and considered by me and my family as tenants for life attached to the soil, I bequeath a dollar for every man, woman and child, as a small token of my regard for their faithful and affectionate service and willing labours to myself and family, being reciprocally bound in one general tie of master and servant in the prosperity of the land, from which we draw our mutual comforts and subsistence in our several relations (a tie and interest not practised on by the hired labourer of the day in the United Kingdom), the contrary of which doctrine is held only by the visionists of the puritanical order against the common feeling of mankind."

With the emancipation of the slaves in 1834 the whole system of Jamaican society was deranged, the economic structure received a staggering blow. The country could not soon recover from a change so drastic. Is it remarkable that, overwhelmed by a rebellion of unruly blacks in 1865, the Colony in its despair surrendered the Constitution it had held for two hundred years, and declared its willingness to be ruled by the Queen as she saw fit? Eighteen years later, the first steps were taken to return to Constitutional conditions, and since then the system of representative government has been further modified to permit black and coloured to take a share in the administration. Naturally time has mitigated the economic situation. Competition with countries under foreign rule became less acute when they too abolished slavery, but this advantage was offset by the development of the beet sugar industry in temperate climates. A diversification of agriculture has helped matters, more particularly as the fruit industry has developed in recent years. To-day the banana is more important than the sugar cane. More than half of the export trade of Jamaica is in fruit, and about one-eighth in sugar. Other products are coffee, cocoa, coco-nuts, dyewoods, logwood extract, pimento, rum and tobacco.

In recent years conferences have been held among the various British possessions in the Caribbean. The difficulties they share unite them in a community of interest. There has even been talk of a West Indian confederation. The trade agreement of 1925 binds them to Canada, whose banks, widely established in Jamaica and elsewhere in the islands, form a further link in the relations between them and the Dominion.

The revolution in conditions which has taken place in the last hundred years has helped to accentuate an unsatisfactory feature in Jamaica's social life. It has greatly increased the disproportion of the white element to the black. In 1834 the population was given as 411,700. All but 70,000 free coloured, and 30,000 whites, were emancipated slaves. To-day the island has about one million inhabitants. Since the abolition of slavery the number of blacks has grown enormously, Indian coolies have been introduced, Chinamen have come in. The white population has been cut in half. Yet on it crowds the burden of the island's destiny—of administering, in a situation bristling with social, political and economic problems, and of guiding black and coloured in the responsibilities of government.

On my visit to Jamaica I had good travelling companions. They were my wife, who had accompanied me on journeys in many parts of the world; Charles Bates, who enjoyed seeing new shores as much as we did; and Harry Smyth, Jr., who had shared experiences with me in the northern Canadian wilderness. The journey southward on a comfortable little ship of the United Fruit Company's line was refreshing. By the time we reached the Caribbean we felt as care-free as the flying fish which skimmed across its tranquil surface.

The sun was rising when we passed the Palisadoes and the site of Port Royal, and found ourselves within the harbour of Kingston. Before us the grey and white buildings of the city emerged from embowering trees. Behind them the slopes of the Blue Mountains showed faintly through the mists of a late February morning. Soon we were anchored at the wharf, and in no time courteous customs officials had examined our luggage and made us free to land. Like other places in Jamaica, Kingston has been the victim of disasters. It has been shaken repeatedly by earthquakes, it has suffered from hurricanes, it has been devastated by fire. Yet it has survived these afflictions nobly. Though it is not architecturally attractive, the parks and gardens are beautiful, the villas of its residential sections are comfortable. The public services, including an excellent tram-car system, are highly creditable.

We made our headquarters at the Manor House at Constant Spring, situated at the base of the foot-hills five or six miles from the city proper. Here we had the advantage of cooler air than in a hotel nearer the sea. It was a convenient centre for expeditions to various parts of the island.

Though in Kingston as elsewhere in Jamaica there are gradations in colour from pure black to pure white, stock of mixed origin is not conspicuous. Most of the population seems to be almost unadulterated negro. Yet there are subtle differentiations which the visitor should not ignore. A few days after our arrival a tailor who showed little trace of any but black blood came to try on a coat he was making for me. By way of conversation as he fitted the sleeves I said to him, "Is it not extraordinary how one finds Scotchmen everywhere?" "Yes", he replied, happy at the allusion to the typically Scottish name he bore.

As he made a chalk mark here, inserted a pin there, he extolled the merits of the race—finishing with the remark, “I have a little Hebrew in me, too.” It was only when he had completed his adjustment and was reviewing his handiwork that he added, “and some African also.”

One day we drove to Newcastle, a military cantonment situated near Catharine’s Peak, about 4,000 feet above Kingston. The greater part of the rise occurs in the section between Gordon Town and Newcastle. The construction of this portion of the road represents an engineering feat. For much of the distance the route winds in hairpin bends so skilfully planned they filled us with admiration, and gave us an ever-changing vista. Many of the hill-sides were scantily covered with guinea grass, bamboos in places gave a feathery beauty to the verdure, clumps of bananas grew here and there. Tall yellow spikes of aloe made patches of colour, begonias and numerous other flowers hung from the banks which bordered the roadside. At higher altitudes where our course for a stretch meandered through the upper reaches of valleys were plantations, a few well-built houses, and many clusters of whitewashed huts, built of bamboo and thatched with palm. Each had its group of negroes of both sexes and all ages. There were jet blacks, mottled blacks, shiny blacks, and dull blacks. All seemed cheery, and the blacker they were the happier. The younger children were especially engaging. They radiated gaiety, and beguiled us into giving them small coins for the flowers they flung into the car as we passed. The military post at Newcastle is well placed to command an extensive view over the eastern part of Jamaica south of the Blue Mountains, and to cover the approaches to Kingston. Its modern buildings

prevented us from imagining we were in a mediæval stronghold, as its site among lofty spurs and furrows otherwise suggested.

On another occasion we visited the sugar refinery of Serge Island, situated in the valley of the Morant River about twenty-five miles east of Kingston. As far as Morant Bay our route followed the coastal shelf, and there turned inland. It crossed clear rivers flowing gently across narrow lowlands. Near the mouth of the Yallahs it skirted the edge of a dirty brown estuarine pond, which we were told was full of alligators. It passed among groves of tall coco-nuts along the sea shore. In places it mounted over spurs from bordering hills, giving us glimpses of the blue Caribbean sparkling in the afternoon sunlight.

We found the establishment at Serge Island interesting and well-appointed. The plant of the refinery was operated by electricity developed at a water power in an adjoining stream. An avenue shaded by palms led from the highway. The comfortable house stood in a beautiful garden. As we were having tea on the verandah a brilliantly coloured macaw flew from a tree and joined us. She was introduced to us as Sally. Never have I seen a more amusing bird. She flitted about, she mischievously grabbed bits of food, she lay on her back, she played like a dog, she sparred with our host. When he tired of her antics he hurled her into the air. Sally, unperplexed by this rebuff, was back in a minute. She perched on the verandah rail and scolded, and when her harangue was over interpolated chatter among our remarks. She seemed positively apt and adroit in her repartee.

The main roads in Jamaica are everywhere so good that one is tempted to travel by motor, rather

than take advantage of the railways which connect Kingston with the other important centres of the island. On our longest expedition we followed for the most part a conventional tourist route, which passed through the western and central parts of the island by way of Spanish Town, Mandeville, Montego Bay, Ocho Rios, Shaw Park, Moneague, and Bog Walk, and thence back to Spanish Town and Kingston. Going by car with a good guide we were able to stop where we chose and divert from the main roads as we wished.

From Kingston to Clarendon, about forty miles to the west, our route was through low-lying country. The interest of this part of the journey was provided by the human element, and by the various crops—banana, sugar cane, sisal, and logwood—among which we passed. We saw the blacks sometimes working in the fields or along irrigation ditches, more frequently loitering by the roadside or around their houses. Often we met women erect and stately, carrying great baskets on their heads. Children greeted us, offering for sale strings of oranges and tangerines.

Nearly every visitor to Jamaica goes to Spanish Town, and is required by local tradition to stop on his way at Tom Cringle's cotton tree halfway from Kingston. Spanish Town, the capital of Jamaica till 1866, is the St. Jago de la Vega of the Spanish régime. An atmosphere of decay invades the House of Assembly, the King's House¹ and other historic buildings, former centres of administrative activities, now relegated to different uses. The cathedral stands where there was once a Spanish chapel, and afterwards the first parish church of the British occupation, thrown down by a hurricane in 1712.

¹ Since destroyed by fire.

Rebuilt, repaired and extended, and yet again restored, the rambling red brick building enshrines the history of Jamaica. Within its precincts are monuments to men and women who have played their parts in the life of the colony from the time of Cromwell to the present.

Nearing Mandeville we entered higher country, rolling hills scattered with irregular fragments of limestone, and broad valleys filled with red soil. Pleasant farmsteads nestled among trees, herds of cattle grazed on grassy slopes. The town itself we found charming. Well-built stone walls overgrown by creepers bordered sunken winding roads. Neat houses were almost hidden by embowering flowers—sky-blue plumbago, pink and crimson hibiscus, scarlet poinsettia. A square-towered church stood on a broad green. But for the banyans and the palms we might have fancied ourselves in a quiet English village.

We made the journey between Mandeville and Montego Bay comfortably in a day, up and down high hills, past many settlements, along winding streams, and found time to divert from our route and spend some hours on the edge of the Cockpit country. Leaving the main road at Vauxhall, we motored up a narrow side track which after much twisting brought us to White Hall. Here a Chinaman kept a store to supply the needs of the local negroes. Nearby beneath the shade of bread-fruit and cocoa trees, amid pineapples and bananas, and surrounded by friendly and uninquisitive blacks, we ate some sandwiches to reinforce us for the country of "Look Behind". The sinister name has long since ceased to have significance. The Maroons who still dwell in the deep rounded depressions in the maze of craggy flat-topped hills are tamed. They are no

longer the fierce and hardy people who, for more than a century after the Spanish had vacated Jamaica, resisted English authority and were a threat and danger to public security. But what a refuge these hunted blacks, and the runaway slaves who joined them, found here in innumerable caves and pot-holes, behind rugged cliffs and pinnacles, amid dense vegetation! Driven out of one hollow or cockpit they could find their way to another by paths unknown to their pursuers. In such an environment the struggle to subdue them was long drawn out. From time to time treaties were made, granting lands and other privileges. These conciliatory tactics did not long avail. Episodes occurred to give offence and trouble was renewed. Indians from the Mosquito Coast who fought them with their own weapons helped to bring them to submission. Bloodhounds were used to track them to their haunts. The struggle wore on, and it was not until the end of the eighteenth century that the harassing of the planters ceased.

At White Hall the motor road ended. We took to Shank's mare, and followed a track deeply worn by donkey hoofs and negro feet. Bright green paroquets flitted among the trees, and no less verdant lizards scampered over the polished cobbles. After a mile or so of walking we reached the bottom. Here at a place called the River Hole, where a stream disappears below ground, we found a picturesque group of women washing their clothes, and chatting in a language which, if it were English, was unrecognisable. As we watched them a Jewish trader, brisk and dapper, suddenly emerged from the jungle. While we talked with him he told us stories of the Maroons. He pointed to the few houses on a steep hill to the north which composed their town of

Accompong, about a mile away. Accompong was the name of one of the brothers of Cudjoe, a doughty Maroon chieftain of the early eighteenth century. Romantic memories throng the Cockpit country. The wild nature of the locality, the difficulty even yet of penetrating it, nourish them, even if the Maroons of to-day are unworthy of their warlike ancestors.

Endless banana plantations growing in valleys and up steep slopes, ochre red soil, limestone crags, red roads, or white where freshly broken rock was spread, carts piled high with bananas and drawn by mules, little whitewashed shanties, blacks breaking stone for metal, schools open to the air, bright-eyed children returning from their lessons, sugar refineries, some silent but all smelling of rum—these form the picture the hilly country between Vauxhall and Cambridge recalls. From Cambridge our road descended to the valley of the Great River. On the lowlands which border it were herds of Indian cattle, and in places farm buildings commodious in comparison with the modest habitations in the hills.

At Montego Bay we were unable to obtain accommodation at a hotel near the beach, and contented ourselves with rooms at a hostelry in the town. The noise during the first night of our sojourn almost induced us to seek shelter elsewhere. All the cocks of the community crowded at intervals in bright moonlight; the hens, not to be outdone, cackled vigorously. There were cat fights which quantities of water flung from upstairs windows failed to silence. The dogs of the town yelped and howled in unison. Motors raced hooting through the streets, bells without chimed at the hours and half-hours, clocks within struck as frequently but not simultaneously. However, the proprietor and his wife were obliging, they allotted us quieter rooms, and if

the bedlam was equally bad on the remaining nights of our stay it did not bother us.

The sea bathing at Montego Bay was pure joy. Never have I felt smoother or more comforting water or seen more exquisite sea colouring than at the Doctor's Cave. Jade green, dark emerald green, rich purple green, blue green made a brilliant foreground to the long stretch of yellow coralline sand, the waving grey-green palms, the bright splashes of tropical flowers. And what limpid water! The bottom could be seen clearly at a depth of twenty or thirty feet, with strange tropical creatures swimming about or clinging to the scattered pebbles. As the sun set in gorgeous splendour over the red hills behind the little town, the reflections on the calm surface turned the bay into a great jewel of iridescent loveliness.

Rose Hall, about ten miles east of Montego Bay, is worth visiting, not so much because of the legends of the infamous behaviour of a former chatelaine, but because of the architectural interest of the ruins of a great mansion. Though in a sorry state of dilapidation, most of the structure is still standing, and the handsome masonry is well preserved. The old negress who was our guide regaled us with stories of cruelty and murder, and showed us blood stains on the floor where the wicked Mrs. Palmer is said to have met her death. Apparently she was a later mistress of Rose Hall than the Rosa Palmer whose virtues are extolled on a monument in the old church of St. James at Montego Bay.

Our route from Montego Bay to Shaw Park at Ocho Rios, where we made our next stop, followed the stretch of the coastline of Jamaica first visited by Columbus. In places we journeyed along narrow coastal plains, elsewhere we swung over hills de-

scending from the mountainous interior. We jogged through villages—Falmouth, Dry Harbour and St. Ann's Bay—interesting in their records of the political and economic life of the island. By the sea shore we stopped while a black boy, having tied some hempen rope to his feet, shinned up a coco-nut palm to get some nuts to refresh us with their milk.

Shaw Park was formerly a planter's residence. The situation several hundred feet above the sea, the attractive surroundings, the transparent stream which chased its way through the gardens murmuring soothingly, and the excellent service made it a delightful resting place. The beach at the mouth of Dunn's River, a mile or so away, is perhaps not as pleasant a place to bathe as the Doctor's Cave, but the scenery is even more lovely. The yellowish sand of finely comminuted limestone and broken shells forms a crescent, fringed with palms and other tropical trees. Cliffs mottled and caverned peep from the luxuriant growth. Near the little bath houses, Dunn's River roars into the sea in a white cascade of rare beauty. After swimming in the buoyant sea or lying on the sand one may have a cleansing shower beneath its spray.

From Ocho Rios to Spanish Town the highway provided us with a good cross-section of Jamaica. After leaving Shaw Park we soon began to mount through a gully, so narrow that the limestone cliffs on either side almost met overhead, and so festooned with ferns and creepers that the air was heavy and unpleasant. We were glad to emerge into the sunshine of the higher pasture lands near Moneague. Here spreading trees rose along well-built walls which separated irregular paddocks and wandered up and down over the hills. Orange trees covered

with yellow fruit grew close to the roadside. Comfortable houses and herds of well-fed cattle indicated prosperity.

Around Moneague, as elsewhere in the porous limestone region of inner Jamaica, streams disappear below ground, to gush forth in springs which feed the rivers flowing on the surface to north and south. In crossing the hills towards the headwaters of the Rio Cobre we entered drier country. The clouds of dust which rose as we motored through Bog Walk marred the beauty of the roadside. Here the river is dammed, and from the reservoir leads a large flume to generate electricity at a plant a short distance below, and an irrigation ditch to supply water for the parched savannahs near Spanish Town.

At Spanish Town we enquired for the best tavern at which to have tea, after a hot and fatiguing journey. Our informant suggested the White Marble Hotel as the most sumptuous, no doubt because he was in league with the proprietor. It showed signs of having once deserved so grandiloquent an appellation, but we found it sadly down at heel. The proprietor, fat and wobbly, led us to a parlour up a flight of stairs. Windows hung with pink-dyed lace curtains let in a sickly light. Rocking chairs of surprising number and variety almost blocked the room. Scriptural texts all askew admonished us from shabby walls. Departed relatives surveyed us from gilded frames. Faded bric-à-brac filled the corners. Fly-blown paper roses crowded dusty tables. The atmosphere was close and heavy. A buxom negress brought us tea, condensed milk, and stale cakes. As these were not to our liking a great jug of punch came next, and lest the amount of rum contained should be insufficient the remains of a half-pint

bottle as well. All this refreshment cost us only four shillings, but getting rid of the beggars who surrounded our car in the courtyard increased the outlay.

Probably the finest ruin in Jamaica is Colebeck Castle,¹ near Old Harbour. There is a tradition that a Colebeck was transported to Jamaica for cutting down an elm tree. If this was the John Colebeck who built the castle, he remained to fill offices both civil and military "with great applause".² Erected in the late seventeenth century, the old building is stately even in decay. Though part of the structure appears solid many of the arches have fallen. Hoots of owls echo in the deserted halls. Bats flit about the débris-filled dungeons. Four ruined bastions at the corners of an enclosing rectangular garden are remnants of former fortifications. Along a lane leading to the highway are bits of broken walls. Tattered wire fences replace them. Ill-cultivated fields nearby heighten the atmosphere of gloom.

In the valley of one of the tributaries of the Rio Minho we saw a more modern ruin. The viaducts, the great stone buildings, gates and walls showed that at one time it had been the centre of a large sugar plantation. The remains, impressive amid the vegetation, were depressing also. Farther up the valley we visited copper prospects near Retreat, long known but never worked commercially. The element in small amounts has been found at several places in Jamaica, but up to the present nowhere in large quantities.

¹ To Gilbert Wainwright, Manager of the Bank of Nova Scotia, at Kingston, with whom I travelled to Colebeck Castle, and the valley of the Minho, I am indebted for much information about Jamaica.

² Quoted from epitaph on the gravestone of Colonel John Colebeck in the Cathedral at Spanish Town.

No part of Jamaica is inaccessible. Perhaps the most nearly so are the Cockpits, and the wild deep valleys scoring the northern slopes of the Blue Mountains where Nanny, a Maroon leader, held sway and defied the troops about the year 1739. The southern slopes of the range are easier to reach, and it was from that side we decided to make the ascent to their highest point, Blue Mountain Peak.

Our route from Kingston led by motor road through Gordon Town and Guava Ridge to Yallahs Bridge, and onward by donkey trail to the coffee plantation of Radnor, at an altitude of 4,000 feet. Radnor, where we were to be the guests of the hospitable owners, was to be the point of departure for our climb. At Guava Ridge an immaculate member of the Jamaican Constabulary directed us on our way, with a politeness which would have graced one of the courts of Europe. We met few people, and not a single car. At Yallahs Bridge we found a diminutive negro, Jocelyn, and a little pack mule, Edith, awaiting us, but no sign of the mounts which were to take us onward. The Yallahs, a stream of clear green water, here flowed in a wide gravel bed bordered by high steep banks. The bridge was not yet open to traffic, but we had no difficulty in fording the river, and its cool water prepared us for our walk. As we neared Minto, a small settlement a mile or so on our way, we met groups of schoolboys. From some we got the salutation, "I respect you, Sirs," from others, "Good evening, Masters". The little store of the village was a centre of gaiety. Here we were treated to what was called Spanish sherry—a decoction nothing more than slightly disguised rum. We were glad to eliminate the taste with sweetened soda water. Meanwhile some of the population danced and romped to the strains of a guitar.

Soon after leaving Minto the mounts which we had expected at the river appeared—two small mules and two ponies—and on these we continued our way up the steep zigzag trail to Radnor. The sure-footed beasts gave us a fine ride up the valley of the Little Negro, fording the stream from one side to the other through tumbling waters. As we approached Radnor we entered coffee plantations, and watched the blacks gathering the red berries from the dark green shrubs growing on stony slopes. The establishment, dating back to 1778, consists of many low gabled buildings, some of stone and some of wood. On wide-spread barbecues behind, the coffee beans are dried. A stream provides a good water supply, and makes music as it falls down the mountain side. In the brief tropical twilight we revelled in the view of the beautifully sculptured mountains around us. Ridge, landslide and gully were flooded with purple, and here and there crimson glowed on the higher crests. Orange clouds floated across the deep blue sky. Soon the colours faded, and white mists floated down and hid the upper valleys. Well might Anthony Trollope write, "Nothing can be grander in colour or grouping than the ravines of the Blue Mountain ranges."

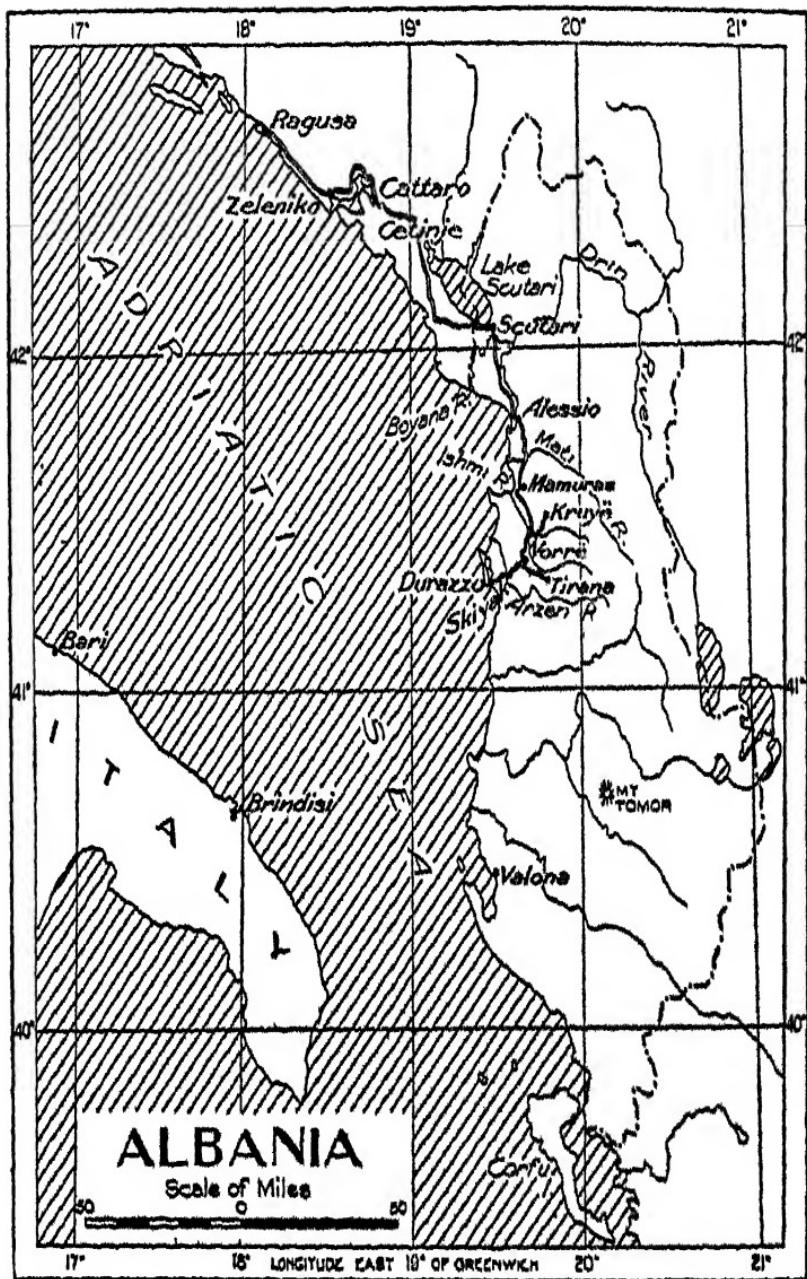
It was raining next morning, and we were unable to make the early start we had planned. By ten o'clock the weather had cleared sufficiently for us to leave, and we were on our way. The winding trail led across the face of landslides, through deep ravines, along the edge of precipices, below frowning cliffs, up steep slopes to Abbey Green, an outlying plantation of Radnor. Higher the path entered woods, and though in places the grade was steep the footing was easier for our nags and mules. At Portland Gap where we rested for a while a deep valley opened to the northward through the gather-

ing clouds. As we continued the ascent heavy rain began to fall. The path was wet and soggy. Our mounts became obstreperous. One of our party while pleading with his "Maud" received a kick below the belt, but this unkind rejoinder did not daunt him. Edith, retaining her function of pack-mule, and her escort Jocelyn, both fresh and frisky, arrived at the top first, and soon afterwards so did we, tired and hungry, some on foot, some astride.

The weather on the peak was wretched. It blew furiously and at times it poured. Only once through racing mist did we get a fleeting glimpse of the shore line to the north. The sea seemed almost at our feet. The sun occasionally gave us a watery smile, which cheered us but did not warm our chilling bodies. A shelter hut stood on an open patch of grass, among trees dwarfed and gnarled by the winds on the exposed summit. Here in an old kerosene tin we managed to coax a few pieces of wood to burn, and on the sickly fire to make some coffee. Our host at Radnor had given us some of the famous Blue Mountain brand, and never could the drink have tasted better. The cold excused us too for changing it to *café au rhum* and, I fear, to *rhum au café*. The transformed beverage blended with our biscuits and our sandwiches.

Returning from Blue Mountain Peak the weather cleared; our animals homeward bound gave no trouble. There was time to stop to look at rocks, to examine flowers. Near the top wild strawberries grew and pink-blossomed raspberries; lower down, a profusion of flowers—ageratum, gladiolus, orchids, and many others. We enjoyed the trip, but to tired men Radnor nestling among its trees and waterfalls seemed more comfortable even than it had on our arrival the night before. Next day we bade farewell to Jocelyn and Edith at Yallahs River.

Happy memories of Jamaica cling to me—all happy save one, and that clung too closely to be pleasant. Somewhere in my wanderings there I became infested by the *bête rouge*, a close relation of the jigger. At first I thought the red spots were of no account, but on the voyage home their number grew, and they covered me from neck to toe. The passengers on board advised all kinds of remedies—carbolic soap, limes, soda, turpentine, iodine, ammonia, sulphur, mercuric ointment. I tried them all. None helped. The more I rubbed the more the pests flourished. Mendez, after his sojourn among the Indians of Jamaica said, "I offered up thanks to God for having delivered me from so barbarous a people." So did I when rid of the *bêtes rouges*, more persistent than the Arawaks. A doctor friend travelling with me to Great Slave Lake administered drastic treatment. Only then, months later, did the demons go! Jamaica is a wonderful place for a holiday, but let not the visitor treat the "red beast" lightly.



CHAPTER VI

GLIMPSES OF ALBANIA

Land of Albania! let me bend mine eyes
On thee, thou rugged nurse of savage men!

Morn dawns; and with it stern Albania's hills,
Dark Suli's rocks, and Pindus' inland peak,
Robed half in mist, bedew'd with snowy rills,
Array'd in many a dun and purple streak,
Arise.

Byron

ALBANIA borders on Greece and looks across the narrow Adriatic towards Italy. Strange that those ancient civilizations, even after long domination, have left so impermanent an impression upon its culture. Albania is probably the most primitive country in Europe, and remains one of the most inaccessible. The traveller may reach Durazzo, its principal port, from Zelenika, the terminus of one of the Yugoslavian railways, by motor road, or may journey there from Bari or Brindisi in Italy in a small steamer. Only occasionally does a big ocean liner anchor near by for a few hours to disgorge its load of tourists.

The *Otranto*, of the Puglia Line, which carried me¹ from Bari to Durazzo, lacked none of the unsavoury attributes one associates with a small and much-used craft. It was overcrowded with humanity, and so packed with freight that freedom of movement was impossible. The stench which rose from the hold failed to neutralize the odour, scarcely less foul, which drifted from the dining-room. The mingled smells hung in my nostrils and persisted in my clothing for days after I had landed.

¹ March, 1930.

It was only a night's journey from Bari to Durazzo. But what a night! The little ship tossed and tumbled, creaked and groaned, dived and leaped. The choppy waves beat mercilessly against her sides. The resounding noises were terrifying and unceasing. Sleep was impossible. With the first streaks of dawn I forsook the deadly air of my cabin. Some refreshment might do me good after the enforced vigil. But alas! my enjoyment of the *café complet* was disturbed by cockroaches speeding away from the basket of bread slices placed before me. The fresh breeze of the open deck might be reviving. I sought the tiny space unencumbered with luggage. Already it was occupied by swarthy nondescripts. They looked as seedy as I felt.

Soon after eight o'clock the waves began to subside with approach to the sheltering shore. About three miles out the muddy landward water formed a clearly-defined sinuous line against the blue Adriatic. The bleak and rugged crests of the mountainous hinterland of Albania appeared. Far to the south-east, snow-clad Mt. Tomor pierced the scurrying clouds of a muggy March morning. Nearer were rolling hills, terminating at the sea in steep slopes or headlands. From intervening bays, low-lying plains stretched inland. The landscape was drab and colourless in the wet and sullen weather.

The harbour of Durazzo, merely an open roadstead, was in process of improvement. A channel to the shore was being deepened and protecting moles were being built. The *Otranto* anchored about three-quarters of a mile out. The passengers and crew crowded the decks, scrambling over trunks, bags and freight. The congestion increased as more and more bales and boxes were elevated from the hold. The creaking of the windlass and the cries of gulls were

added to the babel of tongues. For an hour or so we waited for a tender to land us collectively. None appeared, though various small craft disembarked favoured personages. The rain continued to fall, wetting us, and making more and more insecure the footing on the slimy deck. Out of the mist a stout little rowboat hove in sight, dancing through the waves. At its helm was the friend whom I had come to visit. "Rescued," said an Englishman beside me. I was, indeed, and soon I was safely ashore in cheering quarters.

Albania, part of the ancient Illyricum, has been the victim of invaders from the dawn of history. One wonders how its people, conquered by Greeks, Romans, Byzantines, Slavs, Venetians and Turks, have retained a vestige of the spirit of independence. A tiny country, with an area of but little more than 10,000 square miles, it is yet so strategically situated that turmoils over its possession have echoed among the nations of Europe and may again jeopardize security. Beyond the national boundaries, large numbers of Albanians live in Yugoslavia, and smaller groups in Greece. Their irredentist tendencies might at any time inflame the ever turbulent Balkans.

Little trace of the aboriginal blood or language is found to-day among the inhabitants of Albania. The modern people represent a partial fusion of several ethnic strains, with Greek characteristics conspicuous among the Tosks in the southern part of the country, and Slav among the Ghegs in the north. In both of these chief racial groups there is widespread evidence of Turkish occupation. While generally the fairer complexion and more stalwart physique of the Ghegs differentiates them from the darker and slighter Tosks, there are gradations

from one type to the other. Nor is it remarkable that there are variations between the speech of the people of the lowlands and that of the mountainous interior. The physical nature of the country, hampering free movement, tends to perpetuate linguistic peculiarities. Among the million odd inhabitants are small bands of gypsies, and larger colonies of the Kutso-Vlachs or Rumeni. The Rumeni, wandering with their flocks through the valleys in winter, over the hills in summer, boast descent from the Roman legionaries. The Albanians claim to be the oldest race in south-eastern Europe. Their history merging into legend stirs the national consciousness.

About sixty-six per cent. of the population is Mohammedan. The balance is divided in religious allegiance between the Roman Catholic and the Greek Orthodox churches. Religion, however, does not strongly influence the life of the people. A common saying among the mountain-dwellers, "There where the sword is, is the faith," reveals their attitude. To the Albanian the clan spirit, in which racial sentiment is mainly displayed, is more important than religious adherence. The country is nominally disarmed, but no mountaineer is without his rifle. The northerners, more particularly, cling to ancient customs and tradition. The law of Lek Dukajini, which details *inter alia* the etiquette of blood feuds, still governs tribal relations.

Durazzo occupies the site of the Epidamnos of the Greeks and of the Dyrrhachium of the Romans. In the hey-day of Rome it was a large and important city. To-day its population is about eight thousand. The modern town is situated at the base of the south-easterly slopes of hills which lie between the sea and a shallow lagoon, called the Porto Romano or the Kneta Durazzo. Most of the ancient city

occupied part of what is now the lagoon. Here began the Via Egnatia over which the Roman armies marched in their progress eastward. Here blossomed a culture which made the lower parts of Albania prosperous under Roman rule, and endured into Byzantine times.

When one looks down on Durazzo to-day from the hills above one sees a pleasing picture. The white, buff, and grey houses with brown-tiled roofs, the spreading warehouses near the little quays, the gaily tinted mosques with graceful minarets and in the midst of gardens, seem to snuggle comfortably around the shore of the Porto Romano. How different is the impression one gains when walking through the town! The narrow streets are filthy and clogged with rubbish. Many of the buildings shaken by earthquakes or sacked during the war have never been rehabilitated. New avenues are in process of construction, with slices of the partly demolished houses left on either side. The widespread squalor is reflected in the appearance of the inhabitants, many of whom are unkempt and apathetic. Malaria—the curse of the lowlands of Albania—leaves the mark of its ravages.

On the hills to the north stands King Zog's new summer palace, a stucco building, sickly magenta in colour, bare and hideous. A road, bordered by newly planted trees, winds towards it. On one side are remains of a wide Roman wall of thin red bricks and much concrete. From its material have been constructed in turn Venetian fortifications and Turkish watch-towers, bearing witness to successive occupations. Parts of these ancient structures form the foundation of later houses lower down. Fragments of fluted Roman columns and other pieces of fine marble work are built into the jumbled walls

erected by the various invaders, and have even become part of the rubble of the road. They testify to glory that has gone. Everywhere hangs an atmosphere of decay, which efforts at rehabilitation fail as yet to dispel.

With my friend I wandered along the ridge of hills dipping gently to the Porto Romano on the east, and steeply to the Adriatic on the west. The smooth landward outlines suggested an old well-graded surface, the succession of cliffs cut in the flysch on the steep seaward descent marking upward movements in the oscillations of an unstable coast. We saw no large trees, but here and there copses of maquis. Everywhere crocuses and anemones brightened the grassy uplands. Tiny ponies scrambled up a steep zigzag path from a narrow beach, and trailed over the undulations of the crest. Each was laden with two panniers of gravel to be used in the concrete of the Durazzo break-water. A man or boy followed behind every two or three of the animals, now and then allowing them to snatch a mouthful of grass but prodding them mercilessly if they dallied.

On leaving Durazzo the road to Tirana, the present capital—twenty miles to the east—crosses swampy uncultivated lowlands which separate the Porto Romano from the Adriatic. It then mounts low hills and descends into the valley of the Arzen. Leaving Skiyak, a small village situated on the bank of this stream, it again swings over rolling hills, till it reaches the flood plain of the Tirana stream at a point a few miles from the capital.

The Arzen and Tirana streams are similar in type. The brown muddy water of each flows swiftly between banks which are generally steep and in places vertical. The youthful character of the topography of both streams contrasts with the mature appear-

ance of the bordering plains, and of the intervening hills. Like the cliffs on the seaward slope near Durazzo, the drainage suggests recent elevation of the land.

I had been told that I should find the motoring from Durazzo to Tirana exhausting, and the scenery uninteresting. I was agreeably surprised by both. The construction of the road appeared to be good, though its surface had inevitably suffered from the large number of heavily laden trucks—chiefly military—which were constantly passing over it. I wondered if the lowlands near the sea, now occupied by sedge and scrubby vegetation, could not be reclaimed and made to flourish like the naturally drained hilly country. Here and there among the hills were pleasant-looking white or brown stucco houses, red-roofed and surrounded by freshly ploughed fields and groves of olives. A market was in progress at Skiyak. The central square of the village was filled with peasants. Its dusty surface was covered by their wares. The crooked streets which led to it were so congested that it was difficult to pass. Even vigorous blowing of the motor horn sometimes went unnoticed in the din of human voices and donkey cries.

There is little in Tirana that suggests a national capital. But the width and regularity of the new streets, the occasional boulevards planted with trees, the little park, the King's palace, the House of Parliament, and other large buildings give the town an appearance more impressive than that of Durazzo. There is even a measure of charm about the spacious square with the rambling old houses, white mosques, and tall dark-green cypresses. In the middle distance to the east rise wooded hills, and farther away the grey mountains—snow-crested in places when I saw them.

The new thoroughfares and the many narrow dirty streets winding from them teemed with interesting human life. Vigorous erect men from the hinterland mingled with their brothers from the low country, all wearing skull caps (*tarbooshes*), woollen jackets over their cotton shirts, ample sashes, and baggy trousers. The costumes varied in design, colour, and naturally in degree of freshness. The women of both highlanders and lowlanders were no less picturesquely attired in decorated bodices and full skirts of diverse hues. Many of them were veiled. Mullahs in flowing garments and great turbans, and Orthodox priests in black robes and tall head-dresses passed among the throng. Soldiers, both Albanian and Italian, lounged in the sun. Donkeys trundled along or stood patiently waiting, almost buried under their loads of wood, hay and other commodities, unperturbed by the motor-cars which worked their way through even the narrowest streets. A group of gypsies squatted on the banks of a stream, in filthy surroundings. Their youngsters, bright and vivacious, begged for coins.

As I walked about Tirana I wondered if prosperity and happiness lay before the long-tried country and its courageous people, now that an Albanian was King. Nearly five centuries have intervened since the golden days when for a time Scanderbeg, the national hero, held the invaders at bay. The sojourn of Prince William of Wied, whom the Powers placed upon the throne when the country became nominally an autonomous state, following the defeat of Turkey in the first Balkan war, was but an episode. The Italian occupation of the southern part of the country began late in 1914, and brought a measure of peace in the midst of general tribulation. When the Great War was over many dif-

ficulties had to be overcome to satisfy Italian ambitions, without sacrificing Albanian aspirations. The intriguing machinations of surrounding states, the lack of concrete and co-ordinated national spirit, the feuds and jealousies of chieftains of rival clans, all contributed to hamper a satisfactory settlement. After prolonged negotiation between Italy and her allies an agreement was reached in regard to her claims, and her prior interest in Albanian affairs was recognized. In 1925, Ahmed Bey Zogu (Ahmed, chief of the Eagles), who had previously been Prime Minister, became President of the new republic by revolutionary methods, and three years later by similar tactics he assumed the title of King of the Albanians.

The Albanians in the past two decades have had to submit to so many changes under successive administrations that they were disposed to accept the substitution of a King for a President with cynical indifference. The monarchial régime followed the republican with little internal excitement. The stage had been well set, the event had been carefully planned and had been long expected. There is a rumour to the effect that the funds needed to give an appearance of unanimity were provided in part from smuggling and other illicit operations. A high official had occasion to report to the Government the misconduct, in this respect, of two or three subordinates. He was told the offenders would receive summary dismissal. To his surprise he discovered some time later that the punishment had not been executed. On his bringing the matter once more to the notice of the authorities they expressed surprise and regret, and promised immediate action. The subordinates, however, remained at their posts. It was indeed only when the official threatened to

resign that the culprits were removed and, it is said, given advantages abroad. The revenue which they had furnished was so urgently required, that the transfer of individuals so useful would have been inconvenient.

It was not unnatural that Italy should have been concerned over the rise of the new power of Yugoslavia on the eastern side of the Adriatic, and should have taken measures to protect her position. By the Treaty of Tirana in November, 1927, Italy and Albania agreed on co-operation and on the principle of submitting controversial matters to arbitration. This political arrangement was the prelude to economic measures and social penetration. Italy made a loan of fifty million gold lire¹ which was ensured by Albanian state monopolies, and was to be used for public works. She assisted in the establishment of an Albanian national bank. Her citizens received concessions over forest and mineral lands. Her officers were sent to supervise the training of Albania's army, her teachers to instruct in technical schools, her engineers to provide expert advice in many undertakings.

Italy's predominance in Albanian affairs is now assured; her wishes exact consideration; her cultural influence is bound to increase. Her leadership will, indeed, be beneficial to the Albanians. They are in need of both material progress and educational enlightenment, after their long stagnation under Ottoman rule. The physical nature of the country imposes severe restrictions. On the lowlands roads are generally poor, and in the mountains communication is mostly by donkey trail. The right of way of a railway between Durazzo and Tirana

¹ A telegram from Tirana dated June 25, 1931, records that Albania will receive from the Italian government a further loan of 100,000,000 gold francs, with free interest.

has been graded, but no tracks have been laid. The wisdom of completing the railway or of attempting to build other lines is doubtful. It would appear to be desirable rather to improve existing motor roads, and to build others where conditions dictate. Agricultural methods are primitive, and the arable land is largely in the hands of a few well-to-do landlords. The forests do not receive the attention and care their potentialities deserve. The export trade, which is chiefly in olive oil, hides, wool, tobacco, timber and bitumen, may be susceptible of expansion. There is scarcely any industrial development. The poverty, low standard of living and illiteracy of the greater part of the population are conspicuous.

King Zog is a picturesque monarch, attractive in appearance and unmarried. Near him in Tirana live his mother and six sisters, four of whom are single. There is also a brother of whom little is heard. The King rules with the aid of a Parliament of fifty-eight members and a Council of State of seven members, which has replaced the earlier Senate. The members of Parliament nominally are elected, but actually they are chosen by the King and come chiefly from the towns. The upkeep of the army absorbs nearly half the annual revenue.

A subsidiary road leads north-eastward to Kruyë from the highway into Northern Albania, which branches from the thoroughfare between Durazzo and Tirana at the hamlet of Vorrë. The old part of Kruyë sprawls along the slopes of a high limestone ridge, which trends closely parallel to the precipitous front of the mountains of inner Albania; the newer part spreads eastward into the valley between. Westward another valley separates the ridge of Kruyë from an outer limestone barrier overlooking the plain of the Tirana.

Nearing Kruyë, we crossed the Tirana by an old wooden bridge that threatened to collapse under the weight of our car. Beside it a new cement structure in process of construction gave tangible evidence of progress. Less hopeful indications were occasional copses with burnt or mutilated trees, and neglected fields on the lowlands through which the river flowed. Passing onward the road mounted the outer hills among bare rocks, in places rounded and smoothed, elsewhere rough and pitted. In the valley which intervenes between these hills and the ridge on which Kruyë is situated, it led through cultivated fields and olive groves. Then it began to climb, and as it continued upward there were many sharp bends and the grade steepened. Hard by ran the old track, with flags so polished by the feet of countless men and donkeys that they shone in the bright sunshine. A short distance below the town the new road ended and, as we should have chosen, it was by the old path that we came to Kruyë, the home of the great Scanderbeg:

"The city Croia called,
The city moated and walled,
The city where he was born." ¹

In his childhood Scanderbeg was taken to Constantinople as a hostage. His qualities of leadership soon found favour with his captors, and in course of time he was promoted to a high command in the Sultan's army. This preferment, however, did not smother a strong racial sentiment. Rather it kindled the patriotic spirit within him, and a desire to rid his people of a foreign yoke. In the confusion following a battle in which the Turks had been defeated by Hungarians, he seized opportunity to flee to his native

¹ Tales of a Wayside Inn", Third Part—by Henry Wadsworth Longfellow.

land. Rallying his clansmen about him he ousted the Turkish garrison at Kruyë by a stratagem, and captured the fortress, "the White Castle Ak-Hissar". Of this ancient stronghold only the "Tower of Scanderbeg" remains, but of the brave deeds and chivalrous behaviour of the hero countless stories linger.

With thoughts of Scanderbeg in our minds we entered Kruyë, and found ourselves in its quaintly mediæval bazaar. A low roof covered a narrow street and joined the tiny shops crowded closely on each side. So smooth was the pavement we had to walk warily to keep from stepping into the sewage drain which flowed down the middle of the street and branched into channels beneath the shops on the lower side. Wares to meet the simple needs of the mountaineers were for sale—clothing, plain food-stuffs, grotesque jewellery, gay enamel ware and gayer donkey harness. In their open shops squatted tailors making strange costumes, and capmakers fashioning tarbooshes. Everyone was polite, greeting us pleasantly.

As we passed out of the bazaar and continued to mount we met troops of bright-eyed healthy children returning from school. They looked wonderingly at us, but were no less courteous than their elders. Onward we went up the steep crooked pathway, past thick walls built by Venetian or Turk, past great recesses for ammunition, past high buildings with fine mural designs painted under the projecting roofs. Reaching the limestone knob which forms the crest of the ridge we were within the ruins of the ancient fortress. Abrupt descents eastward, westward and southward made the site almost impregnable. Beyond the low grey and brown houses of the more prosperous citizens of Kruyë, which lay

scattered among trees in the valley to the eastward, the bare towering wall of mountains seemed but a stone's throw distant. A narrow path zigzagged up its grey rocky face, ending at a Moslem monastery perched like an eagle's nest on the crag thousands of feet above. Two of these great birds, so common in Inner Albania, soaring high and black in the clear blue sky, accentuated the resemblance.

The day after our visit to Kruyë my friends and I left Durazzo to motor northward. When we had passed the junction with the road to Kruyë our route led over new ground. As far as the Drin, the principal river of northern Albania, it skirted the base of the mountains. In places it meandered through lowlands, elsewhere for short stretches it climbed up and down through pleasanter country among the foothills. It crossed the Ishmi and the Mati, and smaller streams racing from deeply entrenched valleys in the mountains. It wound round wide stretches of swampy ground formed by the over-flooding of the ever-changing channels on the lowlands. Near the Ishmi lay the oak forests of Mamuras. Here a German company was engaged in fashioning lumber from the twisted trees. In the new clearings the stumps remained in the ill-kept fields, and the trees which were not worth cutting held stacks of last year's corn crop.

Alessio, where Scanderbeg died, lies on the left bank of the southern tributary of the Drin. A pleasing view greeted us from the farther shore. Around the mosque cluster weather-beaten houses and ancient ruins. Behind, a path twists to the crest of a conical hill where lies the grave of a holy man. From Alessio our route for a while followed the western bank of the river, crossing the right branch before reaching Scutari. So far on our journey we

had been passing only occasional natives, whose costumes indicated by their distinctive styles the various clansmen among whom our route led. But with our approach to a town of considerable size we were again amid the thronging life we had seen at Skiyak and Tirana. An intermittent procession of colour met us, returning from the market at Scutari. Entertained as we were by the bewildering differences in design, even more were we impressed by the repetition, the brilliant effect of the spectacle as a whole. Tall lithe mountaineers strode along fantastically garbed. A few had rifles slung over their shoulders. Their great sashes bulged with odds and ends, including the smaller purchases they had made at the market. Here and there was the black Scanderbeg jacket. Women, no less majestic than their husbands, came in stiffly spreading skirts, or in looser garments. Some carried great loads of corn stalks. Some knitted as they walked beneath their burdens. Girls wearing gay embroidered dresses and necklaces stopped to watch us as we motored by. The mullahs were there, too, with long fair beards, and always the donkeys, plodding on laden with supplies and sometimes with a weary traveller as well. A little boy, flaxen-haired and blue-eyed, comic in expression, followed a herd of sheep and goats, with a newly born lamb in his arms.

When we reached Scutari we found the market still in progress, the peasants offering for sale all manner of things. Could one find anywhere more picturesque folk, a greater confusion of sellers and buyers, keener bargaining? I longed to linger, to mingle among the seething humanity, to visit the old buildings, mosques and churches, to explore the narrow streets. But we had a long journey ahead of us and could not delay.

Leaving the ancient city we crossed the Boyana by a wooden bridge, getting a glimpse of the broad surface of Lake Scutari, circled by grey mountains. The Boyana, clear and blue, is joined by the right distributary of the Drin, dirty and silt-laden, a short distance below Scutari. In times of high water, when the channel to the sea is blocked, the waters of the Drin flow backward by the Boyana, flooding the lowlands at the northern end of the lake. This sheet of water about sixteen miles long has been described as "among the most beautiful in Europe".

A few miles beyond Scutari we stopped for a belated luncheon, at the foot of a hillside bright with violets and anemones and thick with asphodel not yet in bloom. As we ate our sandwiches a group of children watched us. Except for their strange and wretched clothing they would have passed for Anglo-Saxons, so fair was their colouring. They did not ask for food, but after our meal was over fell upon what was left like famished wolves. Their wan hungry little faces haunted me for days.

My brief sojourn in north-western Albania ended when we reached the frontier of Montenegro, now part of Yugoslavia. Here we were treated with courtesy, both by the Albanian guards and the trimmer and smarter Yugoslavians. Thence my friends were going on with me to Ragusa, or Dubrovnik as it may be called, if one prefers a Slavic name to the more familiar Italian. From its port of Gruz (or Gravosa) the *Francesco Morissini* of the Santa Marco Line—jerky, Deisel-engine propelled, and up-to-date—was to bear me northward along the repellent though fascinating Dalmatian coast to Trieste, and to give me a much pleasanter voyage than that which had brought me to Durazzo.

From the boundary between Albania and Montenegro our route wandered through country more rugged than before. In places we travelled through flat or rolling land, but more often we went up and down high hills, generally rocky, and frequently showing in their bare limestone surfaces the holes and basins characteristic of the karst landscape. Here and there the road passed close to the sea shore, where the waves of an approaching storm seemed ready to engulf the villages on the little flats. For longer distances it followed the intricacies of the coast line, along precipitous slopes high above the water, where the dizziness of our position made us congratulate ourselves that we had an able driver.

It was long after dark when we reached Cattaro, situated at the foot of the bay of the same name. Here we spent the night, and had a little time in the morning to look about us before continuing our journey. Behind the town rise rugged mountains. Patches of forest break the grey of the towering rocks. A waterfall leaps hundreds of feet from a narrow valley high up the slope. A road twists backward and forward to the pass leading to Cetinje. The high gateway of Cattaro opening upon the sea through massive walls, the great square, paved with rectangular blocks of well-dressed stone, the high houses on each side of the narrow streets radiating up the hillsides, the churches and public buildings of solid architecture bespeak the industry of the pirates of bygone days.

While the trade of Cattaro languishes now that Montenegro is no longer an independent country, the place is still prosperous. Less so, I fancy, are the smaller towns, many of them well-built, along the stretch of coast to Ragusa. I wondered, in fact, how their inhabitants managed to survive. Though they

are no longer "sea-sharkers", as our Elizabethan ancestors called pirates, no doubt they continue to draw much of their "sustenance from the sea". There is certainly not much agricultural land, though every suitable spot is occupied. Many of the streams have no valleys; they gush into the sea from subterranean water-courses. Those which flow above ground are bordered by narrow arable flats only. The hard uneven surface of the karst uplands supports no crops, but the deep soil of the dolines—some of them relatively extensive—is exceedingly fertile.

Cattaro lay under heavy rain when we left it in the morning. Ragusa was flooded with brilliant sunshine when we reached it in the afternoon. And how delightful in that dazzling light was the grey limestone town, fresh, clean, and orderly! The paved square, the handsome municipal hall, the clock tower with its copper statue, the stately cathedral with noble columns and exquisitely-carved figures, the vaulted passage leading through a great door to a little quay on the sea shore, the market-place with rugs and fruit and vegetables for sale, the narrow streets festooned with gaily-coloured washings and leading upward to the encircling wall, the old fortress surmounting the hill beyond—the memory of them all remains, a joy to look back upon and a picture to cherish.

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